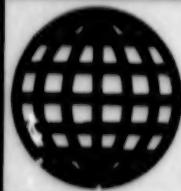


JPRS-UMA-94-012  
30 March 1994



FOREIGN  
BROADCAST  
INFORMATION  
SERVICE

# ***JPRS Report***

## **Central Eurasia**

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***Military Affairs***

# Central Eurasia

## Military Affairs

JPRS-UMA-94-012

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30 March 1994

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## ARMED FORCES

**Notes on Defense Expenditures, Manpower**  
94UM0307B Moscow ARGUMENTY I FAKTY in Russian  
No 8, Feb 94 p 5

[Article: "Figures and Facts"]

[Text] THE MILITARY BUDGET FOR 1993 was approved in the amount of 8.2 trillion rubles; of this amount R7.5 trillion should have gone directly to the Russian Federation Ministry of Defense.

But actually, according to a Defense Ministry estimate 6.5 trillion were transferred by the Ministry of Finance in 1993. If we consider that the minimum amount needed by the Ministry of Defense was over R10 trillion, the Defense Ministry's needs for 1993 were only 65 percent satisfied.

IN 1993 THE RUSSIAN DEFENSE MINISTRY ACCOUNTS were credited with monetary resources from the sale of freed military property (besides arms and ammunition): In the domestic market—R6.5 billion; in the foreign market—\$6.4 million U.S.

One thousand six hundred apartments were acquired in 1993 on these proceeds.

THE RF LAW "ON THE STATUS OF SERVICEMEN", which foresees a number of benefits, guarantees and advantages for servicemen and for citizens discharged from military services and for their families, was enacted as of January 1993. However, some of the benefits and advantages foreseen by the legislation have not been enacted because the mechanism of their implementation has not yet been found at the government level.

They include:

- supplementary transportation benefits;
- payment of monetary compensation when going on leave;
- property insurance for servicemen;
- preferential loans for housing construction;
- sale of apartments and individual dwellings to servicemen on advantageous terms;
- discounts in paying for installation and use of apartment telephones, and other benefits.

MONEY WAS NOT ALLOCATED PROMPTLY, or in full volume, to finance capital and housing construction. The Russian Finance Ministry's debt was carried over from one month to the next. In January 1993 it was R8.3 billion. By the end of the year the Ministry of Finance was R147 billion behind in transferring the amount foreseen in the federal budget for capital construction by the RF Ministry of Defense. And when real growth of prices of construction materials is accounted for, the figure reaches R290 billion.

Of the 61,700 apartments to be placed into operation with funds from the federal budget in 1993, only 50,000 apartments, or 81 percent of the plan, were made available.

Allocation of R658 billion to housing construction and to the purchase of apartments was planned in 1993 (this is not counting outlays on construction of cultural and personal service facilities). That would have been 63 percent of the total allocations for housing construction by the Ministry of Defense in 1993. The actual amount transferred was R565 billion.

ACCORDING TO DEFENSE MINISTER P. GRACHEV the overall numerical strength of the RF Army as of 1 December 1993 was 2,341,000 persons.

Ratio of Contracting and Conscribed Servicemen in the RF Army

	Number of Contracting Servicemen and Monthly Expenditures	Number of Conscripted Servicemen and Monthly Expenditures	Numerical Ratio	Expenditure Ratio
1993	120,000	R15-20 billion	1,300,000	R8 billion
1994	400,000	R60-70 billion	900,000	R6.7 billion
1995-1997	750,000	About R100 billion	750,000	R5 billion

Note: The table gives expenditures only on position and rank pay of servicemen. Prepared by R. Bykov

THE MINIMUM PAY (1994) of contracting servicemen (privates, first rate classification) is over R110,000, the lowest classification (a ship petty officer aboard a submarine receives five times more). There are also a large number of significant benefits and extra payments, such that the total expenditures for contracting servicemen will exceed the figures presented in the tables by three or four times—several trillion per year.

LAST YEAR THE PAY AND ALLOWANCES of servicemen were indexed three times—as of January, April and September. This year they were indexed as of 1 January. Because of the complex economic situation in the country the RF Government decided on several occasions to index the pay and allowances of servicemen 1-2 months

late. This brought on complaints by many servicemen to different levels of authority regarding violation of Article 12 of the RF Law "On the Status of Servicemen."

Thus, the minimum wage was increased by 1.81 times as of 1 July 1993, while the pay and allowances of servicemen were not indexed until 1 September 1993—that is, 2 months later.

The present minimum wage—R14,620 per month as opposed to R7,740 (a 1.9-time increase)—was established as of 1 December by a presidential edict dated 5 December 1993, while pay and allowances of servicemen were indexed only as of 1 January of this year; that is, a month later.

**Grachev Said to Make Room for Personal Friends**  
*94UM0307A Moscow MOSKOVSKIY KOMSOMOLETS*  
*in Russian 18 Feb 94 p 1*

[Article by Dmitriy Kholodov: "General Tragedy: Russia Threatened From the West Once Again"]

[Text] A new disaster threatens Russia in the very near future—general unemployment. Withdrawal of forces from Eastern Europe will be concluded in August of this year, and a large number of highly placed military officials will have to find positions for themselves in Russia.

The huge Western grouping numbers 600,000 persons. The position of the commander-in-chief of the Western Group of Forces corresponded to the rank of a general of the army, and naturally Colonel-General Burlakov, who presently occupies it, and his deputies are not counting on a demotion when they transfer to Russia. There are many personal friends of Pavel Grachev among them. It would be sufficient to name that same General Burlakov, who gave the keys to a new Mercedes as a wedding present to Grachev's son and the daughter of General Kharchenko. Now Burlakov is on track for a job as chief of General Staff or, at the worst, commander of the Moscow Military District.

Grachev himself has long been endeavoring to clean up the generals' Olympus. In the fall of last year he announced to a small government circle that he intended to dismiss six of his close associates—generals Mironov, Kuznetsov, Deynekin, Semenov, and even the Afghanistan veteran Gromov. Then, however, no one really understood what Grachev was intending. Nonetheless, he is gradually freeing the prestigious fifth floor of the Defense Ministry building; the telephones of his deputies, generals Mironov and Toporov, are no longer being answered. Grachev unleashed a main military "inspection" upon the command of the Moscow Military District—to seek shortcomings. When on 4 February, during an official visit to the Taman Division the vehicle carrying the Russian and French defense ministers collided with a truck, Grachev rather bluntly promised to deal with the present commander of the Moscow Military District, Leontiy Kuznetsov.

A report that Chief of General Staff Mikhail Kolesnikov submitted his retirement papers fits into that same operatic scenario. The Information and Press Directorate of the RF Ministry of Defense denied this, and General Kolesnikov himself directly declared: "Our door is open, we are always ready for frank, constructive discussion. We made no secrets of our plans or of the status of the armed forces, and are making no secrets of our work."

The "Western" generals enjoy a great advantage. These are rich people by our yardsticks. The average wage of Russian generals in Germany is 1,200-1,500 marks, at the same time that a respectable automobile could be acquired there for a couple of hundred, or even for free, if the vehicle fails to meet ecological standards and is destined to be scrapped.

Service in the Western Group of Forces was considered to be a privilege in the army. In former times, officers were sent there after serving in a hot spot on the basis of a direct

order from Grachev. However, this order was not followed completely. General Burlakov had never been in any hot spots.

The massive influx of generals from the West threatens to ruin the Russian Army's administration. New jobs are hastily being created. Pavel Grachev voiced the idea of resurrecting the operational sectors that used to stand over the districts and were abolished under Marshal Yazov. This idea would make sense if everything wasn't being done for the sake of creating jobs. Such a chair could also be fabricated out of mobile forces quickly slapped together to accommodate someone's rear end. As a result of restructuring the administration, the Moscow Military District risks being left without communications. The central signal brigade is being taken away from the district and placed into the composition of mobile forces. It will take time and money to set up a new brigade.

Russia has found itself with too many generals. Awarding general ranks before referendums has become a real tradition. In April, 187 persons received the big stars. Around another dozen did so before the December elections. As a result, the annual production volume of generals quintupled in comparison with the Soviet period.

The last reduction in general staff was carried out by Marshal Yazov in 1989. At that time, under public pressure, the central administration of the ministry shrank substantially (especially the Main Political Directorate), and in the words of deceased Marshal Akhromeyev, the Union was left with 1,700 generals. Now the ministry has recovered—never before had the defense minister had so many deputies.

Pavel Grachev is to set off for Germany on 13 March, after which he will probably turn in his suggestions to Yeltsin regarding appointments of generals of the Western Group of Forces. The generals are making ready to move. Many already have apartments here in Russia. The situation is complicated by the fact that withdrawal of the troops from the Baltics is also coming to its conclusion simultaneously.

General unemployment may become a fatal blow to the country. These aren't miners accustomed to living in barracks. Even before the first light of day, black Volgas surround the fashionable multistory buildings on Rublevskiy Highway. Generals of different ranks—one, two, three stars—come out of their homes and board their transportation together with their wives and children.

Personal use of official transportation has become the scourge of the Russian Army. Generals use it to drive to and from work and to vacation homes, and to drive their families here and there. Those who are not entitled to a Volga by their position (as an example, an automobile is provided in the Moscow Military District only to two persons—the commander and the chief of staff) make use of transportation allocated to the needs of an entire directorate or department.

Officers working for such a department naturally never see the vehicle, and as they carry out their operational assignments, they curse the whole world for having to ride the crowded metro. A list of motor vehicles our correspondents discovered at the homes of generals on Rublevskiy

Highway is published below. We ask the General Procurator to verify that the vehicles are being used in compliance with Defense Ministry Order No 22, Order No 60 (a secret order listing the persons using transportation) and Government Decree No 1159.

87-93 MMZ, 59-22 MMG, 24-29 MMZh, 42-80 MMZh (a pickup), 04-44 MOK, 36-63 SP, 00-85 MMA, 04-64 MZ (a UAZ), 2257 MMZh, 35-52 MMKh, 00-07 DT, 38-22 MMYe, 97-09 MMZh, 15-88 MMA, 06-60 MOK, 28-87 MOL, 15-32 ZhSh, 03-00 MKS, 07-80 MMD, 38-55 MMYe, 04-61 MOT, 15-46 MMA, 00-63 MMZh, 17-75 MMV, 83-11 LYe, 26-00 MOL.

### **Central Eurasian Military Balance**

*94UM0306A Moscow MOSKOVSKIYE NOVOSTI  
in Russian No 8, 20-27 Feb 94 p 9A*

[Article: "To Each His Own Invincible"]

[Text] On 23 February 1994 the Soviet Army would have celebrated its 76th anniversary, had it survived. But the Belovezhskiy agreements closed the book on its history. Sovereign units of the former Soviet Army are not simply living separate lives; they are also confronting one another. Quite likely, those who just a couple of years ago would have been called up into the same army might now be looking at each other across a front line—in Azerbaijan, Ingushetia and the Dnestr region. The question of invincibility will be answered differently in the history textbooks of each nation. Still, the army will always remain legendary. It is an army that was feared by the entire world—an army with Halhin-Gol and the Great Patriotic War, Hungary in 1956, Czechoslovakia in 1968, Tbilisi and Baku in 1989, and Vilnius in 1991 behind its back. To some, this is the stuff of a heroic legend, while to others it is horrifying. But no matter what the official name of this day brings to the minds of what used to be the Soviet people, 23 February will remain a holiday of the Soviet Army. It will remain so for all who served in it, and who waited for their soldiers to return from the front or from compulsory service.

### **Russia**

**Numerical Strength** (as of 7 May 1992). 2.8 million. Should reach 2 million by 1995.

#### **Armament:**

Tanks .....	6,400
Armored fighting vehicles .....	11,480
Artillery systems .....	8,415
Warplanes .....	3,450
Attack helicopters .....	890

**Composition:** Strategic missile troops, ground troops, air defense troops, air forces, navy

#### **Combat Experience—Yes**

**Minister of Defense**—General of the Army Pavel Grachev

### **Ukraine**

**Numerical Strength** ..... 700,000

#### **Armament:**

Tanks .....	4,080
Armored fighting vehicles .....	5,050
Artillery systems .....	4,040
Airplanes .....	1,900

**Attack helicopters.....** 330

**Composition:** It is planned that the Ukrainian Armed Forces will consist of three branches—Ground Troops, Air Forces and Navy

#### **Combat Experience—No**

**Minister of Defense**—General of the Ukrainian Army Vitaliy Radetskiy

### **Belarus**

**Numerical Strength**—Plans to increase to 87,000 by the end of 1993

#### **Armament (planned):**

Tanks .....	1,800
Armored fighting vehicles .....	2,600
Artillery systems .....	1,615

**Currently in the republic's territory (according to data from an English military annual):**

Tanks .....	1,850
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Armored vehicles .....	1,390
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Warplanes .....	716
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Helicopters .....	.80
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**Composition:** Emphasis is laid on creating airborne assault and airborne-ground-attack units, mechanized brigades and air regiments.

#### **Combat Experience—No**

**Minister of Defense**—Colonel-General Pavel Kozlovskiy

### **Azerbaijan**

**Numerical Strength (by the year 2000)**—45,000-50,000

#### **Armament:**

Tanks .....	220
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Armored fighting vehicles .....	220
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Artillery systems .....	285
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Warplanes .....	100
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Helicopter gunships .....	50
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**After the Russian Army's departure the Azeri Army was left with:**

Mi-24 and Mi-8 helicopters .....	20
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L-29 airplanes .....	70
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Su-24 and MiG-25 reconnaissance airplanes .....	16
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**According to data from an English military annual:**

Tanks .....	400
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Armored fighting vehicles .....	470
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Airplanes .....	120
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Helicopters .....	14
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**Composition:** Realistically the armed forces have four motorized rifle, two artillery and one tank brigade consolidated into two army corps; a warship detachment, one air squadron and one separate special-forces battalion.

**Combat Experience—Yes** (conducting military operations in Nagornyy Karabakh)

**Minister of Defense**—Major-General Mamedov Mamedrasi Ismail oglu

### **Armenia**

**Numerical Strength** 10,000, according to the "White Book," together with other military formations—15,000. Law permits an army of up to 30,000.

**Armament:** Two divisions transferred by Russia possessed:

Tanks .....	180
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Infantry fighting vehicles .....	180
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Armored personnel carriers .....	60
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Artillery systems .....	130
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Surface-to-air missile systems ..... several dozen  
 Mi-24 and Mi-8 helicopters ..... one squadron  
 According to data of the Institute for Strategic Research:  
 Tanks ..... 250  
 Armored fighting vehicles ..... 350  
 Helicopters ..... 7  
**Composition:** Presently undergoing formation  
**Combat Experience—Yes** (conducting combat operations in Nagornyy Karabakh)  
**Minister of Defense—Serzhik Sarkisyan**

**Moldova****Numerical Strength** Approximately 10,000**Armament:**

Mig-29 airplanes ..... 38  
**Composition:** Regular troops consist basically of ground units, air defense troops and army aviation. The army consists of four groupings, each of which consists of a motorized infantry brigade and a helicopter squadron

**Combat Experience—No****Minister of Defense—Division General Pavel Kryange****Turkmenistan**

**Numerical Strength** (prior to start of 1993) 110,000. Now reduced—no accurate data available. A national guard of 1,000 persons exists.

**Armament:** (according to data from an English military manual):

Tanks ..... 750  
 Armored vehicles ..... 1,400  
 Airplanes ..... 250

**Composition:** Ground troops, air forces, air defense troops and navy

**Combat Experience—No****Minister of Defense—Lieutenant-General Dangatar Kolekov****Uzbekistan****Numerical Strength—no data**

**Armament:** (according to information from independent experts):

Tanks ..... 280  
 Armored vehicles ..... 780  
 Airplanes ..... 265  
 Helicopters ..... 24

**Composition:** Ground troops, air forces, air defense troops, special forces, national guard. Organizationally includes an army corps, a special-forces corps, artillery, reconnaissance, ECM subunit, signal troops, engineer and chemical units, rear and personal support units.

**Combat Experience—No****Minister for Defensive Affairs—Major-General Rustam Akhmedov****Tajikistan****Numerical Strength—no data****Armament—no data**

**Composition:** Creation of ground troops and air forces is planned.

**Combat Experience—No**

**Minister of Defense—Major-General Aleksandr Shishlennikov**

**Kazakhstan**

**Numerical Strength** Must not exceed 150,000. Republican Guards number 2,500

**Armament:** (according to data from an English military annual):

Tanks ..... 1,200  
 Armored vehicles ..... 1,500  
 Airplanes ..... 370

Helicopters ..... 25  
 Warships ..... one division

**Composition:** Ground troops, air defense troops, air forces, navy, civil defense units, border troops, internal troops, Republican Guards

**Combat Experience—No****Minister of Defense—General of the Army Sagadat Nurmagambetov****Kyrgyzstan****Numerical Strength** 14,000

**Armament:** (according to data of the Institute for Strategic Research):

Tanks ..... 30  
 Armored vehicles ..... 75  
 Airplanes ..... 200

**Composition:** Motorized rifle units, air forces, air defense troops and a national guard brigade are planned.

**Combat Experience—No****Minister of Defense—Major-General Myrzakan Subanov****Georgia****Regular army—None****Minister of Defense—Acting, Eduard Shevardnadze****Latvia****Numerical Strength** 6,500

**Armament:** Undergoing formation

Ships and launches ..... 15  
 An-2 airplanes ..... 2  
 L-410 airplanes ..... 2  
 Mi-2 helicopters ..... 6

**Composition:** Navy, ground troops

**Combat Experience—No****Minister of Defense—Valdis Pavlovskis****Estonia**

**Numerical Strength** Must not exceed 5,000. Organizationally consolidated into two battalions

**Armament:** Not reported**Composition:** Not reported**Combat Experience—No****Minister of Defense—Indrek Kannikh****Lithuania****Numerical Strength** Not reported**Armament:** Not reported**Composition:** Not reported**Combat Experience—No****Minister of Defense—Linas Linkiavichus**

**Five-Year Anniversary Of Union Of Afghan Veterans**

94UM0298B Moscow KRASNAYA ZVEZDA in Russian  
12 Mar 94 p 2

[Article by Igor Yadykin: "Afghan Veterans Union Marks Fifth Anniversary"]

[Text] Tomorrow is the fifth anniversary of the founding of the Afghan Veterans Union (AVU). It was created on March 13, 1989, one month after the withdrawal of our forces from Afghanistan.

Today the AVU is a very large organization that brings together not only Afghan war veterans but also veterans of other local conflicts. The union operates in all the ex-Soviet republics (unofficially in Estonia). It has more than 1,200 primary organizations and 287 regional and 15 republic divisions with a total of 350,000 members.

The AVU engages in extensive charity work to provide assistance to disabled Afghan veterans and to the families of fallen comrades. It has currently spent more than \$500,000 to buy wheelchairs abroad. Two years ago the union began providing financial assistance to the families of fallen comrades in amounts of 100,000 to 300,000 rubles. Almost 3,000 production and commercial enterprises currently operate under the union's aegis. To mark its fifth anniversary the AVU has organized a new charity operation for which it has allocated more than two billion rubles.

**Vyunov, Almazov Discuss Cossack Role In Guarding Border**

94UM0298A Moscow KRASNAYA ZVEZDA in Russian  
12 Mar 94 p 4

[Northwest Border District Commander Vladimir Isayevich Vyunov and Northwest Cossack District Ataman Boris Aleksandrovich Almazov discuss Cossack border outposts: "Dialogues on the Border: 'Lyubo' Cossack Outpost"]

[Text] At an outpost, Lieutenant-General Vladimir Isayevich Vyunov, commander of the Northwest Border District, and Boris Aleksandrovich Almazov, ataman of the Northwest District of the Russian Cossacks Union, held an in-depth discussion on the current state of the Russian Cossack movement, the outlook for Cossack service in general, and the creation of Cossack border units.

[Vyunov] I have been to many outposts during my military career, but this is my first visit to a Cossack outpost, and one called "Lyubo" at that (he laughs). But we are military men, so let's get right down to business. If you don't have any objections, Boris Aleksandrovich, I will begin with a question. The Russian defense minister and the commander in chief of the Border Troops, in accordance with a Russian presidential edict, have drawn up a list of units and subunits that, beginning this spring, will be manned primarily by Cossacks. In addition, we now know the results of the experiment in creating army formations in areas where Cossacks have traditionally lived, such as the Transbaykal region and the country's south. Our northwest region has certain special features. There are no Cossack

settlements here, am I correct? Aren't we in danger of failing the attempt to create and man Cossack formations, Boris Aleksandrovich?

[Almazov] Vladimir Isayevich, such concerns are unnecessary. Let me begin by saying that there is no shortage of young and old ethnic Cossacks in our region. There are tens of thousands of them here on the territory of the five oblasts and Karelia. That the region has no areas in which Cossacks are densely concentrated, with the exception of St. Petersburg itself, is another matter. There is no question that it is harder for us to revive the Cossack traditions and way of life here than in areas where there are Cossack associations and where Cossacks populate entire villages to this day. But I don't think one should dramatize the situation.

The Russian President has issued an edict on state support for the Cossack movement, and we intend to implement it. For example, the Cossack Administrative Commission that I head (the Commission is a part of the St. Petersburg city administration), in conjunction with the City Military Commissariat, has devised a procedure for registering Cossacks who live in the city. Since serving in Cossack units is a purely voluntary affair, we decided that conscripts and reservists, on reporting to a Military Commissariat, have to declare that they are Cossacks and state that they would like to serve in the Cossack subunits now being set up. Accordingly, Military Commissariat officials are required to make a notation in the conscript's or reservist's documents. Then the Military Commissariats, working with the city administration's Cossack office, decide his fate—whether to send him to a Cossack unit or not. We hope that after this selection process the troop and border units will, in terms of their training and morale, soon make themselves known as the cream of the crop in the Russian Army and its Border Troops.

[Vyunov] Well, God willing, as they say. But we border troops also have another interest when it comes to the Cossack movement. I have had occasion to review the draft charter of the Russian Cossack movement. It says that only a Russian citizen who, on completing his compulsory or contractual service like everyone else, registers as a member of a Cossack village community, takes an oath, and begins Cossack irregular service will be considered a Cossack. As we know, that service differs from traditional army service in that a Cossack has his own parcel of land, private farm, or other equivalent farm. It would be good if a Cossack and his family, after completing his service at a border post, for example, could receive such a parcel near the state border. For us it would be very important to thus acquire a second line of border defense. This is because our current border zone is at best made up of neglected villages or unpopulated altogether. It is very difficult to serve under these conditions.

[Almazov] I wholeheartedly support your proposal. That is precisely how we see the continuation of Cossack service upon the completion of compulsory or contractual service in army or border units. The draft charter stipulates that Cossacks who live near the border are responsible for defending it. They must have the right, if required by the situation, to detain intruders and to turn them over to the Border Troops. For Cossacks performing irregular border service are militarily subordinate to the border district and

under the civil jurisdiction of the ataman board of his Cossack community. But to make this possible, the state and the Border Troops command must provide Cossacks with weapons, equipment, and ammunition and grant them certain rights in addition to their responsibilities.

[Vyunov] I agree. And this is why it is essential to lay a legislative foundation for all this as soon as possible. I don't think the technical and organizational side of the matter is going to pose any special difficulty for us. We are prepared to hold training sessions with such contingents and to help them maintain equipment. And that's not all, we'll also help Cossacks bring in their harvests. Again, I think this will benefit both sides. For example, why should Cossacks have to haul their products hundreds of kilometers away to a city when we ourselves can buy them for our border outpost personnel and the families of officers and people serving under contract?

[Almazov] As regards the legislative foundation, you yourself know how hard it was just to push through the presidential edict on state support for the Cossack movement. But even after taking effect, it does not solve all our problems. There has to be clear-cut regulation of relations between regional administrations and Cossack missions at the local level. And it is especially important to achieve this in border regions. We and the Border Troops command must work together to uphold Cossacks' right of priority with respect to settling in border areas. These days, with people in the ex-Soviet republics leaving their familiar spots (and there are many Cossacks among them), it will not be very hard to do this. And let's not rule out the possibility of creating such settlements among our regional Cossacks as well.

Not very long ago I read in a newspaper that Cossacks are already prepared to try on green caps. I think they look good in the caps, and not just green ones. We will like all border service. After all, the Cossacks have safeguarded Russia's borders since olden times. And we are prepared to rear our young generation, your young people, military personnel, and new recruits in this spirit.

[Vyunov] That's great! Let's create a working group to coordinate efforts to enlist Cossacks for border service and to create Cossack settlements along the borders. And in order to ensure that this work continues, I think that we have to look to not only Cossacks of conscription age but also adolescents. Incidentally, you yourself have this in mind. Let's go about this in such a way that a brother goes to an outpost to relieve a brother. You select the kids, and we'll help you organize study groups and young border guard clubs. We'll work together to set up training camps during summer vacation that will be sure to capture the youngsters' imagination with the romanticism of serving on the border.

[Almazov] Great! We don't need to put any of this off. We have a lot of work to do in the time that remains until the spring conscription. Most importantly, we need to carry out our first conscription in a very organized fashion. This will be the starting point for the establishment of Cossack border service in our region. Right?

It's not enough to say that we are Cossacks, we have to prove in deed that, like our forefathers, we remain faithful

to our main calling in life—to serve the Fatherland wholeheartedly! And that's what we will do!

## POLICY

**Grachev: Fewer Than 1.9 Million Troops 'Unacceptable'**  
*94UM0301A Moscow KRASNAYA ZVEZDA in Russian*  
*17 Mar 94 p 1*

[Article by Aleksandr Pelts: "The Army Is Performing Its Tasks Despite All the Complications and Problems"]

[Text] Yesterday Minister of Defense of the Russian Federation General of the Army Pavel Grachev held his regular press hour for Russian and foreign journalists. At the beginning of the conversation, in accordance with established tradition, he informed the journalists about what has happened in the Armed Forces of Russia since the last meeting. Let us remember that it took place at the end of December 1993.

First of all, the Minister stressed that a reform process has continued in the forces in accordance with the plans and tasks that are included in the president's message to the Federal Assembly. Planned measures were taken to improve the administrative system, to establish new force groupings and naval forces, to improve the system to bring the army and navy up to strength, and to provide them with the necessary equipment and armament. The defense minister singled out several of the most important directions in the reform of the armed forces. Above all, he stressed, the improvement of the system of military legislation was continued. The Ministry of Defense has already prepared more than 20 bills and they are preparing bills for new laws "On the Military Status" and "On the Military Police."

Other measures in the reform of the Armed Forces were also also being carried out strictly according to plan. One of the important problems continues to be that of the reduction of the numerical strength of the troops and forces. The Minister of Defense stressed that after a comprehensive analysis the decision was made to propose confirming a strength level of 1.9 million men. It is thought that the lower level that was proposed earlier is simply unacceptable.

At the beginning of the year, it was also possible to reverse such a negative trend as the nonfulfillment of the plan for conscription. As of today, 88 percent of those drafted (from the existing plan) are fulfilling their constitutional duties in the ranks of the army and navy. It is proposed that the induction level be increased to 95 percent by the end of March.

A significant improvement was also noted in the state of military discipline. The total number of crimes and violations has been reduced by one-quarter in comparison with 1993. Nonstatutory relations decreased by more than 22 percent and cases of evasion of military service by 20 percent. Overall, the defense minister stressed, the nature of the violations in the army and navy reflects the situation in society.

The Minister of Defense expressed his greatest concern in connection with the formation of the military budget and

the financing of the Armed Forces. He said that if the negative tendencies continue and no fundamental and decisive measures are taken in the near future, then it will be impossible to speak not only of the further reforming of the army but also of the security of Russia as a whole. Presently, the Ministry of Finance is proposing less than 50 percent of what is required for the needs and normal functioning of the army and navy. Naturally, such a situation is unsatisfactory. The Minister of Defense emphasized that he will continue to seek the budget necessary for the armed forces. He noted that even under these circumstances there are possibilities for additional financing of the forces, above all in connection with the right of the Ministry of Defense itself to determine quantities and to sell combat equipment, with the sale of surplus military property to the national economy, the reduction of orders from the military-military-industrial complex, and the further reduction of the armed forces. Of course, the existence of this plan does not mean that the reform of the Army and Navy will proceed precisely in these directions. The minister of defense stressed that we will not permit a devastating reduction of the army, since this is disadvantageous for the state and in general. Furthermore, the Defense Minister emphasized that, as before, the established military budget will have a clearly

expressed social orientation. It is proposed that more than 50 percent of all the budgetary funds allocated for the Ministry of Defense be directed to the social protection of service personnel.

In the course of the press conference, Minister of Defense Pavel Grachev answered many questions involving the problems of military cooperation with the countries of the far as well as the near abroad. In particular, he noted the good prospects for cooperation with France, the United States, the FRG, and also with Belarus, Uzbekistan, Tajikistan, Turkmenistan, and other countries of the Commonwealth. Commenting on the latest events that took place with respect to the Black Sea Fleet, Pavel Grachev stressed that the present problems must not influence the unconditional fulfillment of the Massandra agreements, and that despite certain difficulties, he hopes for the close cooperation of the minister of defense of Ukraine.

Just as in past meetings with journalists, there were also questions of a political nature. In particular, the Minister of Defense was asked whether his presence in Moscow at this time has to do with the need for a "strong hand" in the capital. Pavel Grachev categorically rejected the political nature of the question and emphasized that the army was busy resolving its own problems.

## GROUND TROOPS

### List of Officer Schools

94UM0299A Moscow KRASNAYA ZVEZDA in Russian 12 Mar 94 p 7

[Article: "For Those Who Want to Become an Officer in the Ground Troops"]

[Text]

Military Educational Institution	Specialty	Qualification
<b>Military Academies</b>		
Military Artillery Academy (Command Engineering Faculty), 195009 St. Petersburg, K-9, ul. Komsonola, 22, tel. 542-15-71	electronic and electromechanical instruments; automated information processing and control systems	electronic equipment engineer
Military Air Defense Academy of Ground Troops (Engineering Faculty), 214027, Smolensk-27, ul. Kotovskogo, 12, tel. 2-65-58	radio engineering	radio engineer
<b>Higher Combined-Arms Command Schools</b>		
Far Eastern VOKU [Higher Combined-Arms Command School], 675021, Blagoveshchensk-21 Amurskoy obl., tel. 2-51-34	tracked and wheeled vehicles	mechanical engineer
Moscow VOKU, 109380, Moscow, Zh-380, tel. 175-82-45	tracked and wheeled vehicles	mechanical engineer
Novosibirsk VOKU, 830103, Novosibirsk-103, tel. 32-50-45	tracked and wheeled vehicles	mechanical engineer
Omsk VOKU, 644004, Omsk-4, tel. 31-36-07	foreign language	translator-reviewer
	tracked and wheeled vehicles	mechanical engineer
St. Petersburg VOKU, 198903 St. Petersburg, Petrodvorets-3, tel. 427-40-88	social work	lawyer
	tracked and wheeled vehicles	mechanical engineer
<b>Higher Tank Command Schools</b>		
Blagoveshchensk VTKU [Higher Tank Command School], 675018 Blagoveshchensk-18 Amurskoy obl., tel. 4-62-98	tracked and wheeled vehicles	mechanical engineer
Kazan VTKU, 420046 Kazan-46, tel. 32-35-21	tracked and wheeled vehicles	mechanical engineer
Chelyabinsk VTKU, 454030 Chelyabinsk-30, tel. 37-09-84	tracked and wheeled vehicles	mechanical engineer
<b>Higher Artillery Command (VAKU) and Command Engineering (VVKIU) Schools</b>		
Yekaterinburg VAKU, 620108 Yekaterinburg, I-108, tel. 27-62-82	electrical engineering	electrical engineer

(Continued)

Military Educational Institution	Specialty	Qualification
<b>Military Academies</b>		
Kolomna VAKU, 140403 Kolomna Moskovskoy obl., tel. 2-40-48	electrical engineering	electrical engineer
Kazan VVKIU RV, 420025 Kazan-25, tel. 76-71-21	electrical engineering	electrical engineer
Saratov VVKIU RV, 410082 Saratov-82, tel. 99-78-58	electrical engineering	electrical engineer
<b>Higher Anti-Aircraft Missile Command Schools</b>		
Orenburg VZRKU [Higher Anti-Aircraft Missile Command School], 460010 Orenburg-10, tel. 41-96-00	radio engineering	radio engineer
St. Petersburg VZRKU, 187061 St. Petersburg, P-61, tel. 233-71-59	radio engineering	radio engineer
<b>Army Aviation Higher Military Aviation Schools for Pilots</b>		
Syzran VVAUL [Higher Military Aviation School for Pilots] (for helicopter gunships), 446007 Syzran-7, Samarskoy obl., tel. 7-38-11	operation of air transportation	pilot-engineer
Ufa VVAUL (for transport helicopters), 450017 Ufa-17, Republic of Bashkortostan, tel. 25-62-31	operation of air transportation	pilot-engineer

## AIR, AIR DEFENSE FORCES

### PVO Main Staff Chief Sinitsyn on Command and Control Automation

94UM0235B Moscow *VESTNIK*

*PROTIPOVOZDUSHNOY OBORONY* in Russian  
No 10, Oct 93 pp 1-6

[Interview with PVO Troops Main Staff Chief Colonel-General Viktor Pavlovich Sinitsyn by *VESTNIK PVO* editor-in-chief Colonel Mikhail Zakharchuk under the rubric "The Second Year of the Army of Russia": "The Computer As Assistant in Battle"]

[Text] *Staff officers must also be trained in heuristic activity, and the intellectual support of staff operations must be provided for, in order for the Air-Defense Troops [PVO] to be able to fulfill their tasks in a quality fashion at the necessary contemporary level. These and other questions were touched on in the discussion of the editor-in-chief of the journal *VESTNIK PVO*, Colonel Mikhail Zakharchuk, with PVO Troops Main Staff Chief Colonel-General Viktor Sinitsyn.*

[M. Zakharchuk] Viktor Pavlovich, the problems that we will touch on today are not new ones for our Air-Defense Troops. The incorporation of electronic gear, automated systems and means of command and control into combat and training processes has been underway for years now, if not decades. I will nonetheless be so bold as to assert that they have taken on particular urgency lately, literally during the period of emergence of the army of Russia.

[V.P. Sinitsyn] That is indeed so. Recent events in the country and the armed forces, in which you and I are living participants, have become so dynamic that we will not be able to handle them, to master them, based only on our past experience. We need a qualitatively new augmentation of our knowledge and skills. Whence the necessity of increasing the role of intellectual support for the work of the staff, on which I, by the way, would like to place the principal focus of our discussion.

[M. Zakharchuk] I understand that your terminology is clear to specialists. But they are not the only ones who read your journal. So let us first orient ourselves with respect to definitions, at least those that are advanced during our conversation.

[V.P. Sinitsyn] I have no objection. And I will start with the fact, for example, that the term "intellectual support for staff operations" is currently becoming more and more widespread, as is the modern interpretation of the existing concept of "automating staff processes based on the use of computer technology (EVT)." This is evidently conditioned by the fact that the processes into which computer gear is being incorporated are of an intellectual nature as a whole, since they permit a quantitative evaluation of logically substantiated variations of enemy actions, alternative variations for the operations of one's own troops and a determination of the optimal ones, and the receipt of unexpected results according to the results of multivariable modeling. The phrase "intellectual support" signifies that the main role in the process of making (or clarifying) decisions remains with the person, while the information and computational systems (IRS)—the intellectual basis of which are mathematical models (MM) and information and computational tasks (IZ and RZ)—are just a tool for staff officers.

As for the heuristic activity of officers in the process of operational and combat training, here we have in mind the aggregate of logical techniques and methodological rules for theoretical research and seeking out the truth or the simplest method of training that facilitates resourcefulness and activeness in the person. The term, in other words, is not imbued with any outside connotation.

[M. Zakharchuk] So let us please return to where we started—raising the role of intellectual support for staff operations.

[V.P. Sinitsyn] It is conditioned by the sharp increase in the number of uncertainties that must be dealt with in order to make the necessary decisions, the acute lack of

time assigned to substantiating the plans for combat operations, and the optimal variations for the combat application of various types of manpower and equipment.

The experience of wars and conflicts of recent years testifies convincingly that modern combat operations are characterized by great rapidity, intensity and dynamism, and consequently an acute shortage of time to make or clarify decisions. The process of decision-making is becoming more and more difficult, crucial and collective under those conditions.

More crucial because losses, both human and of material resources, could prove to be catastrophic and lead to the complete loss of the fighting ability of troops in the face of the increased firepower of modern weapons systems and equipment, as occurred in the Persian Gulf.

More collective because under conditions of an acute shortage of time, commanding officers at all levels encounter a host of uncertainties that it is becoming impossible for one person to deal with, even with a high level of professional training and intellectual potentialities, without the aid of professional experts and advisors, a large portion of whom are concentrated on the staffs. It must be understood in this regard, when speaking of decision-making, that it (the decision) is a result of the activity of a system created for that purpose, in which some evaluate the alternative variations of the actions of the opposing sides (the staffs), while others (the commanding officers at all levels), agreeing with a proposed variation and approving it, assume responsibility for the consequences of decision-making, relying on collective reason.

More difficult because the scarcity of time allotted for obtaining, processing, analyzing and evaluating an enormous quantity of information, on the one hand, and the enormous responsibility—which in some cases becomes nationwide or universal in nature—on the other, condition the necessity of the mandatory performance of multivariable modeling of the confrontation of SVN [offensive air weapons] and PVO, with the aim of increasing reliability and reducing erroneous decisions to a minimum. It is also more difficult because staff officers, in a collective search for the optimal solution to a specific task (heuristic activity), run up against a shortage of initial information and a host of uncertainties.

A scarcity of information and a number of uncertainties exist, in particular, at the stage of evaluating the enemy, making it more difficult to deal with the possible intent of his actions (targets, amount and sequence of missions being carried out, sectors of the main and other thrusts, composition of forces and equipment employed, and determination of the force of the strike by sectors, as well as in the accomplishment of specific tasks—the operational disposition of forces in echelon or a massed strike, the expected duration of SVN operations and the like).

At the same time, without having determined with a certain degree of reliability the intentions of enemy actions, it is impossible to evaluate the potential capabilities of the existing PVO system (subsystems for reconnaissance, command and control, fighter, aircraft and surface-to-air missile cover, and all types of operational, rear and

technical support). The presence of uncertainties in evaluating the enemy obviously engenders uncertainty in the evaluation of one's own troops and the choice of variations for combat operations, and ultimately has an effect on the reliability and objectivity (quality) of the decisions being made (or clarified).

[M. Zakharchuk] The conclusion could be drawn from what you have said that an objective necessity has appeared on the agenda today of having a unified system of mathematical models and computational tasks, allowing officers not only to deal with the uncertainties you have mentioned in a short period of time, but also to suggest to them the optimal variations of solutions for combat operations, for the restoration of a destroyed PVO system, and for the resolution of other issues that arise in the dynamic combat environment. But how should a system of mathematical models (MM) and computational tasks (RZ) look? Or rather, to what requirements must they conform?

[V.P. Sinitsyn] The functional essence of the system can be summarized according to the following parameters, without going into the details of it.

**First**, optimized models and computational tasks "suggesting" the best variation for a solution out of some quantity of possible ones should constitute the foundation of the system. A large portion of the existing MM and RZ do not conform to this requirement, since they are in essence informational-computational.

**Second**, the MM and RZ in the system should reflect more accurately the physical sense and specific nature of the confrontation of PVO Troops with the forces of an airborne attack.

One shortcoming of the existing MM and RZ is the fact that unilateral combat operations, in which the enemy is relegated to the role of an abstractly standardized target, is inherent in them. The specific nature of the confrontation of PVO Troops with the forces of an airborne attack assigned to suppress them is not reflected in the models. The actions of echelons and groups for PVO suppression are not modeled as a consequence of this, and the outcome of the confrontation is not always taken into account in the evaluation.

**Third**, the results of a decision issued for display should reflect the situation in dynamic mode, the position of the opposing sides in space, in real time, using three-dimensional graphics. Most of the existing MM and RZ do not meet this requirement, since they issue for display the results of decisions in the form of tables, graphs and contour lines.

Thus, the scientists of the PVO Troops, in order to meet the needs of practice, must develop a system of mathematical models and computational tasks using a uniform methodological foundation; possessing hierarchical coordinability and systems-engineering coordinability of the indicators and criteria for evaluating the effectiveness of combat operations, allowing staff officers to uncover the possible intentions of an airborne enemy, evaluate his potential capabilities, predict the outcome of a confrontation of the sides, optimize variations for the actions of the enemy and his troops and depict the three-dimensional position of the opposing sides in dynamic fashion.

[M. Zakharchuk] The requirements for the level of training of staff officers are growing. No one today doubts the necessity of improving the methods of instilling skills in modeling a confrontation of SVN and PVO, analyzing the results and preparing proposals substantiated by computations. But what about this question—how will all this be achieved? The more so as the forms and methods of training today contradict the requirements of progress in the military arts.

[V.P. Sinitsyn] That same scientific and technical progress, on the other hand, gives us the opportunity to increase the efficiency of staff officer training through the incorporation into operational and combat training of computer games and automated systems for modeling the combat situation. The tasks of gaming combat operations must be resolved with the use of modern computer hardware united into local networks. This will make it possible to perform an evaluation of the conceptual framework of the operational application of PVO formations according to the results of multivariable modeling, and to determine the optimal variations for the combat application of PVO formations and large units of the PVO Troops and special troops, as well as to obtain objective evaluations of the level of professional training of the officers of directorates and staffs at all levels.

[M. Zakharchuk] How do matters stand in this regard with the use of automated systems for modeling the combat situation in the United States and the other NATO countries?

[V.P. Sinitsyn] You can have no doubt that they are proceeding apace with scientific and technical progress there. A center for modeling the combat environment, for example, has been created at the Ramstein Air Base (Germany). A practical verification of the capabilities of the center was performed during the comprehensive Ex-91 and Cactus Juggler-92 command and staff exercises, as well as the Caravanguard-91 and Reforger-92 exercises.

The spending for the actual performance of exercises on the scale of Cactus Juggler-92, in the estimation of the NATO combined forces command in Europe, would be 100-150 million dollars, while the cost of the computer version did not exceed one million dollars.

The partial utilization of the combat-environment modeling center during the Reforger-92 exercises made it possible to reduce the cost of conducting them by 25-30 percent compared to prior years. Need one be persuaded that the adoption of computer games into the process of training, under conditions of cutbacks in appropriations for the maintenance of the armed forces, including spending on military training, is a promising direction for improving the operational and combat training of the PVO Troops?

This direction is also a promising one because it makes possible, along with a reduction in spending, a rise in the quality of training via the repeated processing of different variations for the start and waging of combat operations.

[M. Zakharchuk] I was telling you something at the beginning of our discussion, Viktor Pavlovich, that you undoubtedly know perfectly well yourself—questions of the automation of combat training have long been under

study in the armed forces. The development of MMs and RZs, in particular, have been underway in the interests of the staffs for more than 25 years now. An extensive store—or better yet, a base of MMs and RZs—has been created over that time. You will agree, however, that the effectiveness of their application for the preparation of operational-tactical computations and the study of the processes of operations (combat operations) remains low as before. What is going on here?

[V.P. Sinitsyn] There is a host of reasons here. One of the main ones consists of the absence of uniform methodological, operational-tactical, informational and mathematical foundations for the structuring and application of models. Various models for one and the same purpose thus meet varying requirements, and various approaches were applied to their development. These have not been included, and cannot be combined into a unified system of software support for the command and control of troops without the corresponding refinement and development.

The available models, as a rule, do not take into account all of the principal factors that have an effect on the course and outcome of operations (combat operations). There are still too few efficient models that would provide for the issue of the necessary data in real time for staff activity, answer the main questions in the preparation of operations (combat operations) and be of practical assistance to the commanding officers or commanders and staffs in devising solutions and planning operations of higher quality and in more operative fashion.

This situation makes urgently necessary the devising of uniform requirements for staff models. The work that has been started at the PVO Military Academy imeni G.K. Zhukov for the creation of imitative models of bilateral combat operations for units in the branches of our forces and the comprehensive modeling of combat operations by large PVO units and formations is deserving of attention in this regard. The initiatives of scholars at the academy to create simulation and imitative systems are also deserving of attention and support; dynamic models of the confrontation of SVN and PVO are inherent in those systems, making it possible to reveal uncertainties in the actions of the enemy, predict the outcome of the confrontation, optimize the variations of the actions of the enemy and his troops and depict the results of the computations in dynamic form, and the actions of the sides in space and time using a three-dimensional graph.

I am convinced of the expediency of continuing the work to create mathematical models, computational tasks, and dynamic scenarios of the confrontation of SVN and PVO, with their subsequent incorporation into the practice of operational and combat training. This would make it possible to increase markedly the effectiveness of training for staff officers at all levels, through the more detailed study of various aspects of logical-analysis and logical-synthesis activity.

[M. Zakharchuk] So if the task of providing a uniform methodological approach in the creation of the foundations for the computerization of the training and combat processes (and there should be no doubt of this) faces us once again, what requirements should those foundations meet?

[V.P. Sinitsyn] I will list the principal ones as a start. They are a uniformity of the operational-tactical fundamentals for structuring it; the trustworthiness of the results of modeling; operativeness in the receipt of results; conformity to the level of command; a systemic approach; standardization of the indicators and standards used; and, uniformity of the information base.

The requirement for uniformity of the operational-tactical fundamentals of structuring the models envisages the necessity of the complete realization of the basic principles of the military arts, and first and foremost those such as a determined concentration of efforts in the most important areas, the uninterrupted nature of combat operations, the comprehensive and coordinated application of all manpower and resources, and uninterrupted command and control, support and combat operations. This requirement, moreover, assumes the observance of a uniform substance of the specific operation (combat operations) and structure of the conceptual model, and a formalized description of the processes using the corresponding mathematical methods.

The trustworthiness of the results of modeling is understood to mean a sufficiently precise reflection of the most material aspects of the processes being modeled and the general laws characteristic of them. Trustworthiness of the results can be achieved not only through the modeling of the most substantial aspects of the operation or combat operations, but also through a correct regard for the connections between them and a suitable regard for the various factors, conditions of the situation and methods of combat and supporting operations.

The PVO formations, in my opinion, should take into account the following basic factors and conditions of the situation in order to fulfill the requirement of the trustworthiness of the results in the model of an operation or combat operations.

#### Regarding the enemy:

- the composition, basing, TTKh [tactical-performance characteristics] and operating methods of enemy SVKN [air and space offensive weaponry];
- the combat readiness of SVKN;
- the employment of conventional and nuclear weapons, cruise missiles launched from various platforms, long-range radar-detection and reconnaissance-strike aircraft systems;
- the fire and electronic suppression of PVO Troops and assets;
- the maneuvering capabilities of SVN;
- the capabilities of command-and-control and navigational systems;
- the capabilities for repeat operations by SVN;
- enemy losses in the course of repelling his strikes and capabilities for reinforcing forces in various sectors;
- and, the level of enemy knowledge on the PVO system.

#### Regarding one's own forces:

- composition, stationing, TTKh and operational methods;
- the combat readiness of units and large formations;

- the employment of conventional weaponry and missiles with special charges;
- the fire and electronic suppression of the enemy;
- the maneuvering capabilities of PVO Troops and assets;
- the capabilities of reconnaissance, command-and-control, guidance and support systems;
- the capabilities for repeat operations by PVO Troops and assets;
- interaction;
- the stability of elements of the PVO system;
- troop losses;
- restoration of the fighting ability of units and large formations;
- the availability of false positions and forces;
- and the utilization of reserves.

#### Regarding targets, conditions and the area of combat operations:

- targets in the defense and their characteristics;
- the state of the airfield network;
- the radar environment;
- the electronic environment;
- and the specific military-geographical features of the area of combat operations.

Operativeness is understood to mean the possibility of obtaining and making practical use of the results for the necessary quantity of variations of modeling in the rhythm of staff work. Evaluations of operativeness must take into account the total time expended for the preparation of data, the entry of that data into the computers, the machine computations and issue of results to the display devices or documentation, and for the operational-tactical analysis of the results obtained.

Conformity to the level of command is understood to mean the use, in a model, of information with a level of detail and precision that is characteristic of this level of command and control, and the depiction of the results of modeling in a visual form that corresponds to the form and content of the documents that are developed by the staff at the given level. The requirement for conformity to the level of command conditions the necessity, on the one hand, of maintaining an equal degree of detail for each partial process, and on the other of aggregating the indicators used to the extent of ascension from the tactical to the strategic scale. Higher-level models should thus make use of data obtained in models from lower levels, in the form of summarized indicators and standards. The horizontal links between models at lower levels should be taken into account therein.

Important to ensure meeting the requirement for the model to conform to the level of command is the selection of the primary object (element) of the modeling. This question remains unresolved up to the present. As a result, the individual PVO asset is taken as the primary object in certain models, for example, the subunit in others, and the unit or larger formation etc. in still others, even though the model was developed for one and the same level of command and control.

The selection of the primary object of modeling should be made according to the following criteria:

First, the object should be the foundation of the structural entity for a given level of command and control, through which the composition of the field formation of the given level is defined. The force composition of a fighter air regiment [IAP], for example, is typified by the quantity of fighters, and a surface-to-air missile brigade [ZRBR] or regiment by the quantity of systems. The primary object of modeling for the former is consequently the fighter, and for the latter the system.

The composition of the PVO formation, as a rule, is determined by the quantity of units and formations of the branches of service, and the unit or formation could consequently be considered the primary object for a model of the operation.

Second, the object should have a significant influence on the results of the modeling. The results of the battle of an individual system and fighter, for example, will be significant for the ZRBR and IAP and insignificant for the large PVO formation. The battalion and fighter are thus primary for a model of battle, and the IAP and ZRBR for a model of the operation.

Third, the elements of the object should be located on the terrain in compact fashion. The IAP or ZRBR, say, could be considered the primary object for the model of an operation, since the elements of that object are located on the terrain in relatively compact fashion, while the large formation or EW unit could not be considered a primary object for the same model, since it does not possess the trait of compactness, not to mention the fact that the capabilities of individual EW subunits, especially forward ones, could prove to have a substantial influence on the results of modeling the operation.

**The requirement for a systemic approach** signifies that the model should be a constituent element of a unified system of software support for the command and control of troops that is coordinated with others by aim, purpose, operational allocation, composition of factors taken into account, limitations and allowances, indicators and standards, system of classifying and coding data, principles for the protection of information, etc. Any RZ or model, in accordance with this requirement, should be developed as a constituent element of the whole and be characterized by a functional completeness, and have the possibility of realization both autonomously and as part of a definite system.

**The requirement for the standardization of indicators and standards** consists of performing calculations and modeling of combat operations using indicators and standards that are coordinated among each other.

**The uniformity of the information base** assumes the use of databases in the machine as the object of collective and multipurpose use, and assurance of the uniformity of one and the same data for various models and computational tasks.

[M. Zakharchuk] There are probably other special technical requirements that support the reliable operational and thematic substance of the mathematical models and computational tasks. Could we dwell on those you listed?

It will be no less important, in my opinion, to clarify what properties a unified system of software support for the command and control of troops (SMOUV) should possess.

[V.P. Sinitsyn] First, the software support should reflect the actual physical and information processes. If the staffs are fed a flow of data being processed by computer, then the officers preparing the proposals and making the decision must combine the creative principle with the results of modeling and computations. The SMOUV must consequently have an immediate influence on command and control.

Second, the software support (models, RZs etc.) is, as it were, the collective reasoning of people put into material form, and should naturally provide intellectual support for the work of staffs and other command elements.

Third, the SMOUV is inseparably linked with the theory of command, since its structure and content depend on the structure and content of the processes of command and control of the troops. A direct and reciprocal link thus exists between the theory of command and the SMOUV. The use of the SMOUV thus stimulates the development of command theory, and the theory the development of the SMOUV. The SMOUV acts as a uniting link between the theory and practice of command.

Thus, there is the conclusion that the SMOUV is becoming an organic constituent element of command and control, and should have a substantial influence on the substance and methods of staff work.

The properties cited provide grounds to consider it expedient to recognize software support for command and control as a new category of the military arts, and the operational arts in particular. This recognition provides a correct orientation for theory, will make possible a more complete regard for the requirements of practice and will lead to more energetic efforts not only by the commanding officers and staffs, but also military scholars on questions of improving command and control of the troops at a qualitatively new level.

[M. Zakharchuk] In concluding our discussion I would ask you, Viktor Pavlovich, to provide at least a general outline of promising directions in the development and improvement of systems of software support for the troops.

[V.P. Sinitsyn] These would be, first and foremost, the development of the methodological, operational-tactical, mathematical and information foundations for constructing and employing software support within the framework of a unified system. The creation of scientific-methodological means and a methodology of constructing the system and its elements, along with the evaluation of the suitability of the models and the effectiveness of their application, is an important area of this work. General organizational-methodological foundations for the development and incorporation of models and RZs are needed.

The creation of fundamentally newer and more suitable models is a topical task. The problem of the optimal nature of the decisions made is a central one in the command and control of troops, and is directly linked with the quality of the models and the computational tasks. The adoption of a model for use is of an evaluative nature today. The use of such models predetermines the necessity of ascertaining

several variations of the actions of the sides, with a quantitative evaluation of each of them according to an accepted criterion. The method of running through variations reduces the operativeness of command and control, and forces a limitation on the number of variations. The selection of the best from among variations being considered does not give full confidence that it is the optimal one, or meets the conditions of the situation to the full extent. The creation of optimized models that make it possible to devise the most acceptable variation for troop operations under the set conditions of a situation is thus an important task.

The development of techniques for the application of models and computational tasks, the operational-tactical analysis of the results obtained and the devising of new methods of staff work with the use of software support should be considered a no less important area.

In connection with the fact that the use of formalized methods in the practical activity of commanding officers and staffs to resolve many intellectual tasks is difficult, the creation of expert systems is an exceedingly important and, at the same time, extraordinarily complex task.

Particular attention should be devoted to researching the problem of constructing expert systems. It would be expedient to perform special, comprehensive scientific-research work, with the aim of gradually creating such systems. Only the availability and application of expert systems will provide effective intellectual support for the work of staffs and other command and control elements.

[M. Zakharchuk] Thank you for the discussion.

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#### Organization of Mobile Missile Air Defense

94UM0235C Moscow VESTNIK  
PROTIVOVOZDUSHNOY OBORONY in Russian  
No 10, Oct 93 pp 16-18

[Article by Candidate of Military Sciences Colonel Antoliy Zakharenko under the rubric "Military Training": "We Want a Mobile Defense, But We Are Planning a Static One...—How Can This Contradiction Be Resolved?"]

[Text] The journal has published materials before on the organization and waging of mobile surface-to-air missile defense (ZRO). In this article Colonel A. Zakharenko touches on one of its most important problems—the commander's plan to wage mobile ZRO, and the devising of a plan for combat operations that would correspond to that type of defense.

The idea of organizing and conducting the mobile surface-to-air missile defense (ZRO) of fixed targets of the military and economic potential of Russia and its armed forces has been gaining more and more popularity among military scholars and practitioners among the surface-to-air missile forces [ZRV] with time. The experience of local wars and military conflicts has served as the foundation for this idea. The conceptual framework for mobile ZRO, in its most general form, consists of the following:

Mobile ZRO is created on the basis of the mobile forces and assets of the ZRV and is waged with the widespread employment of maneuver by them, both before the start

(in immediate preparations) and in the course of combat operations. The mobile ZRDNs [SAM battalions] are maintained in peacetime in a non-deployed state in parking areas near military compounds built close to the targets or non-mobile (fixed) ZRV sites being defended. The battalions are deployed to training positions that are selected in the immediate proximity of the military compounds to rehearse combat training tasks. A limited number of ZRDNs of a larger ZRV unit, deployed at specially equipped duty positions, are on combat alert status.

The ZRDNs, in accordance with the plans for combat operations, are brought up during periods of threat to their primary battle positions, from which the repulsion of the first enemy air strikes is planned. The execution of maneuvers by the ZRDNs within their deployment areas to alternate battle positions, according to previously determined variations, is expected later in order to provide for the survivability of the unit or, according to the situation, to restore destroyed SAM missile systems, as well as to perform new tasks that arise. This concept has been codified in the guidelines with the coming of highly mobile SAM systems into service with the ZRV; in practice, however, the troops, as well as the tactical theory of the ZRV, still have a host of problems that make its complete realization more difficult. One of those problems, in my opinion, is the development and adoption of the plan for waging mobile ZRO by the unit commander and the preparation of the combat documents.

The general plan of the unit commander and the plan for combat operations are currently worked out in detail for the primary combat positions. The scenario formulates, in particular, variations for the maneuvers of the ZRDN and the conditions for performing them, which are reflected on the map of the unit commander's plan in the form of tables that indicate the time of the maneuver to the first (for the first variation) and the second (for the second variation) alternate positions, as well as in the form of a graphical card for the frequency of coverage of the ZRDN envelopes for the maneuver variations. It follows from this that a variation of a maneuver assumes a shift of battle positions by all ZRDNs. But can we be sure that the enemy will give us such an opportunity—to realize a selected variation of maneuver completely?

Priority in the selection of a variation and the moment of a strike belongs to the airborne enemy. We will thus not be able to maneuver all ZRDNs into their alternate positions simultaneously. The duration of the period of threat and the time intervals between strikes in the course of combat operations are also determined by the airborne enemy. There thus may not be enough time for the sequential and orderly maneuvering of ZRDNs to alternate positions.

Having deployed the units in battle formation in their primary areas during a period of threat, on the other hand, we should maneuver the ZRDNs within their deployment areas according to a previously worked-out schedule at least within a day (the concrete time is determined by the capabilities of enemy reconnaissance in the sector where combat operations are being conducted). And that means the repulsion of the first strikes by an airborne enemy will be repelled by a ZRDN not from the primary positions, for which a plan of operations has been developed in detail

and the combat missions have been assigned to the sub-units, but rather from the alternate positions. And that is just where the actions of the subunits have been defined very vaguely.

A plan for the combat operations of a unit developed today based on a commander's plan for combat operations oriented toward waging a "positional" (from fixed positions) defense thus does not fully conform to the principles of mobile ZRO.

#### What can be proposed to overcome this contradiction?

The following approach to preparing and conducting mobile ZRO has been tried out in KShU [command/staff exercises] by those studying in the ZRV faculty, as well as in the ZRV units headed by officers M. Perfilov, L. Rusenichik and P. Krikun.

Proceeding from a combat task that has been received and an assessment of the situation, the required values of surface-to-air missile fire are determined that correspond to the necessary correlation of forces with an airborne enemy—the size of the area of air-defense missile fire, its density at the assigned lines, the number of firings and their effectiveness, and the frequency of target or area coverage.

A system of air-defense missile fire, as is well known, is created via the deployment of units in battle formation. The basic parameters of the battle formation—the standard distances of the ZRDNs from the target being defended ( $\delta_{sp}$ ) and the intervals between their positions ( $J_{sp}$ ), as well as the distances between deployment lines of ZRDNs of various echelons when their deployment in echelons is necessary—are thus calculated on the basis of the required indicators of the firing system that have been

received. These parameters are used to determine the dimensions of the ZRDN deployment areas in the assigned deployment area of the large formation or unit.

A system of battle positions is selected in the deployment areas of the ZRDNs that allows the fullest possible realization of the capabilities of the ZRDNs to defeat enemy SVN [offensive air weapons] at very low altitudes and maneuvering routes. The quantity of battle positions is not limited on a tactical plane therein—the more the better (including on the maneuvering routes, within the limits of their capabilities). The rejection of the existing division of positions into battle, training and alert, and battle positions into primary and alternate, seems expedient. All of the battle positions are considered equivalent and, to the extent of capabilities (when they are accessible), are assimilated by the battalions during peacetime in the practicing of combat-training missions and in the course of alert duty. The apprehension expressed by some specialists that this will allow the enemy to uncover the system of positions, in my opinion, does not conform to the intent of highly mobile ZRO.

So the system of battle positions has been determined. The schedule of maneuver of the ZRDNs according to the ZRO plan is then worked out. It should be optimized on the terms of preserving the assigned (required) parameters of the firing system at any moment in time, the minimum time and economic expenditures for performing the maneuvers, and the limitations of the systems of reconnaissance, command and control, and technical and rear support. It can also be tied to deceptive measures to confuse the enemy, and with the operations of interacting and covering formations and units. A possible variation of a schedule is shown in Fig. 1.

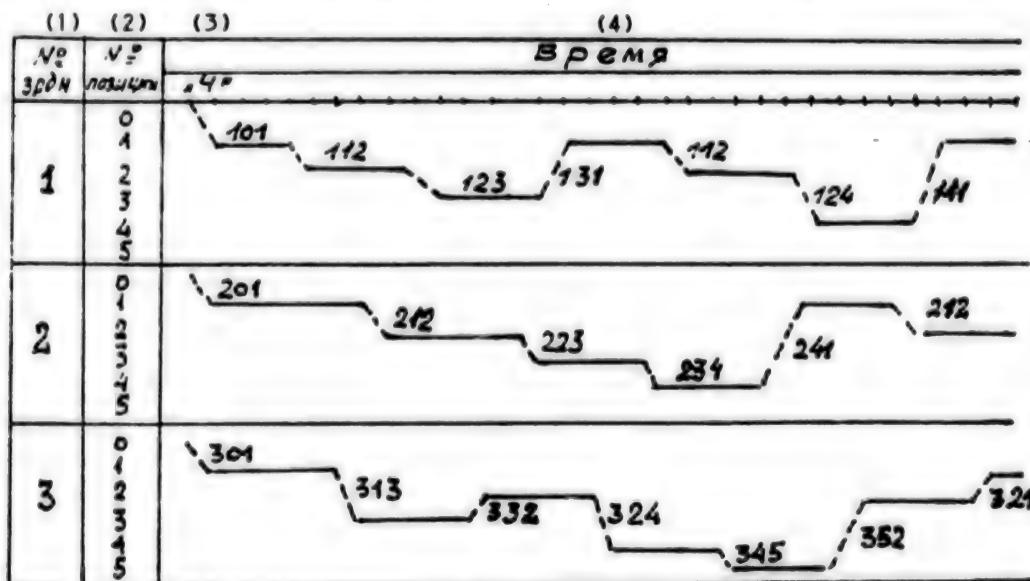


Fig. 1. Schedule of the combat patrol of ZRDNs in their deployment areas (332 is the maneuver of ZRDN 3 from the third to the second position, and the presence of the ZRDN at the position).

#### Key:

1. No. of ZRDN
2. No. of position

3. "H"
4. Time

Recall that the necessary data regarding all of the positions should be entered into the local computer network—the information and computational system (IRS)—of the ZRV unit ahead of time. The IRS monitors the taking of battle positions by the battalions during a period of threat and the performance of maneuvers according to the ZRO plan, and issues recommendations for the performance of maneuvers during the course of combat operations based on the situation.

The cutbacks in the armed forces that are taking place within the framework of military reform and, as a consequence, the necessity that is arising for the efficient performance of combat tasks using limited personnel and assets is an argument of no small importance in favor of this variation for organizing and conducting mobile ZRO.

The angular dimensions of the deployment areas of the ZRDNs (deployment sectors) calculated relative to the hypothetical center of the target or area being defended may then be assigned to battalions as their primary sectors ( $a_{pr}$ ) when performing mobile operations by means of combat patrols within the deployment area of an air-defense missile brigade (ZRBR). The primary sectors of battalions ( $B_{pr}$ ) when maneuvering ZRDNs using combat patrols within their deployment areas are best designated according to the bisectors of the neighboring deployment sector (so that no gaps appear in the system of fire when performing missions by this or that ZRDN). These sectors are best used for organization and interaction with one's own fighters (Fig. 2).

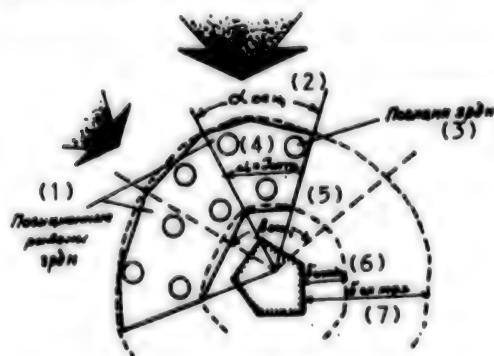


Fig. 2. Deployment areas and primary sectors of mobile ZRDNs

**Key:**

- |                              |                                  |
|------------------------------|----------------------------------|
| 1. deployment areas of ZRDNs | 4. $\Delta L = J_s \text{ patr}$ |
| 2. $a_{pr}$                  | 5. $B_{pr}$                      |
| 3. ZRDN positions            | 6. $\delta_{sp} \text{ min}$     |
|                              | 7. $\delta_{sp} \text{ max}$     |

The assignment of the primary sectors (search and firing) of the ZRDNs at low altitudes and alert duty sectors for group search seems extremely difficult when organizing and conducting mobile ZRO with an increased number of possible positions in the deployment area of a ZRDN. This requires a great deal of time for the performance of calculations and coordination, and means that the mobility of the ZRO will be limited; they should consequently be rejected.

The assignment of the combat mission to the mobile ZRDN should thus include the boundaries of the deployment area, the primary sector, the system of battle positions, and the schedule and maneuvering signals. These data are reflected on the maps of the unit commander's plan for combat operations and on the maps of the ZRDN commanders.

This approach to the development and formulation of the commanders' plans for waging mobile ZRO corresponds more to reality than the one employed today among the troops that is based on prevailing directive documents.

**From the editors:** Such are the views and recommendations of a scholar for the organization and planning of mobile ZRO. True, we do not share them completely. The readers possibly also have other viewpoints and proposals. We await your letters.

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**Aviation Equipment, Weapons Maintenance Problems**

94UM0235A Moscow VESTNIK PROTIVOVOZDUSHNOY OBORONY in Russian No 10, Oct 93 pp 36-45

[Responses to reader letter by several officers, prepared by Colonel Aleksey Andreytsov and Lieutenant-Colonel Aleksandr Tarapatin under the rubric "Servicing of Hardware and Weaponry: ""The Hardware, Well, the Hardware Later..."]

[Text] "Dear Editors!

"To paraphrase the words of the well-known song, it could be asserted that the aircraft come first, first the aircraft, and the hardware, well, the hardware later... Such is life. We have not received our special clothing or gloves for two years now. The 'clothes people' have moreover said that the service lives of the fur articles have been increased due to difficulties with supply.

"The motor vehicles are completely worn out. The TM-59 heating vehicles, for instance, have already served more than one decade, and have undergone several overhauls. We have to manufacture the heating vehicles using whatever's lying around, in homemade fashion. There is a chemical method for fighting surface ice build-up, of course, but the concrete surface gets ruined from it, and the ecology will weep bitter tears as well.

"It's bad enough that the hardware sits in unheated tents. Try and drive out after you start it up—the heaters don't work, and there are not enough blowtorches to heat up the oil in the crankcase. And that's not to mention the worsening supply of fuel, oil, spare parts and other matériel for flights because of the unbalanced state of the economy.

"Now everyday living. We are living in a single-story wood-panel barracks. The steam heating radiators leak. The roof is falling apart. The electric lighting goes out sometimes. Only fragments remain, if you will pardon me, of the lavatory. After flights you are so 'drained' that you want to take a bath and a steam in the bathhouse. Go right ahead... 20 kilometers away. It is simpler if you are not married. But what about those with families? The children are taught in the same barracks in three shifts. When they finish, what

*then? The library is closed—there is no job slot for it. They show films from the times of the Khrushchev thaw. The commissary is stuffed with scarce goods, but the prices really sting. It is difficult to maintain a family, since most of the wives are not working. There are no jobs. So the specialists are running away. Those who are a little older and have nowhere to go simply toil in silence, and endure the drudgery. Those who are a little weaker in spirit take to drink, since there is plenty to be had. They cry on someone's shoulder, and that is enough. In short, I still have faith in future changes. But will that faith last for long?"*

—Senior Lieutenant Andrey Skorobogatov.

**The author's indignation regarding the increasingly difficult problems in the servicing and maintenance of aviation equipment is understandable to us. Most technical specialists, to all appearances, share his opinion as well. This can be seen from their letters to the editor and from the materials that have been published on this topic in the journal.**

Yes, the situation is a difficult one. We could sit with arms folded and wait for our last breath, on the one hand, or we could ask determinedly, doggedly and inventively at all levels to see that the technical services survive in these difficult economic times, and support the process of combat training for the fighter pilots to the full extent. That is indeed the approach to matters that has been planned, in our opinion, in the aviation rear-support services of the PVO [Air-Defense] Forces. Here is what the corresponding officers had to say in answer to the angry questions of the author.

#### PVO Forces Rear-Support Directorate Chief of Staff Major-General F. Klus

**Background:** Frants Iosofovich Klus was born in 1944. He completed the Military Academy for Rear Support and Transport. He has served in the Baltic Fleet, the Transcaucasus and the Moscow PVO District. Major-General F. Klus has been chief of staff of the Rear-Support Directorate of the PVO Forces since July 1992.

Airfield technical flight support is a crucial, multifaceted and complex process. It demands highly trained specialists and the use of diverse technical equipment. Specialists of the aviation-technical, airfield-engineering, and electrical and gas services, along with the aviation weaponry service, are occupied with these problems in the Rear-Support Directorate of the PVO Forces. The spectrum of tasks they perform is most diverse. They include those that Senior Lieutenant Skorobogatov names in his angry letter to the editors.

It is bitter and disappointing read such "epistles" (and they are being encountered more and more often in our own mail as well, and not just in letters to the editor), but there is no way to get away from them. And if we approach this voice from the field more seriously, we detect a grave paradox: The heads of the chiefs of various ranks are still more worried about getting the aircraft up and hitting the target than about whose hands are "reviving" that equipment.

I repeat—all of this is distressing. But we will be realists. It is difficult for the rear-support services to reach each flier. That is the prerogative of the commanders of the aviation technical units. The tasks of flight support, including the

organization of food for flight and technical personnel, clothing for officers and warrant officers, bath and laundry services for the conscript soldiers and NCOs and the maintenance of the housing and barracks stock, are resolved in those units as a group.

The aviation headquarters, detached airfield technical-support battalions and aviation-technical bases, aside from the enumerated tasks, support the combat alert duty of fighter aviation. They perform this latter task with more and more difficulty each day. This is caused, first and foremost, by the low manpower levels of the units. They are at 35-40 percent today, while the amount of tasks they perform remains the same! I would add, with profound regret, that this problem is not always taken into account by the staffs of the aviation regiments, making the resolution of these problems even more difficult. I have in mind here not a decline in exactingness toward the quality of flight support, but rather the fact that the capabilities of the aviation technical units are not always taken into account when planning flights, and they are not given the necessary assistance.

The crisis in the economy, on the other hand, has had a sharp impact on logistical support for PVO aviation. A number of enterprises that were producing and performing overhauls on flight ground-support equipment have ended up outside our borders. These include those producing the AMK-24/56 airfield air-conditioning equipment in Baku and the TM-59MG heating vehicle in Minsk, among others. And what can one say about the supply of aviation technical matériel anyway, when we are left without a quarter of the enterprises that produce spare parts and assemblies for the aircraft?

Aircraft engines for transport aviation have stopped coming from Zaporozhye, and Il-76 aircraft and spare parts for them from Tashkent. The question of repairs for MiG-25 aircraft engines has not yet been resolved. Matters are no better with the training of specialists. The well-equipped detached training regiment for aviation support has ended up, strictly speaking, abroad. The funds are gone, as they say, while we are left with our own interests. We are putting the question point-blank. But easier said than done... The creation of such a training regiment on territory of Russia is still in the decision stage.

Financing spending for the procurement of aviation technical flight-support equipment and aviation technical matériel has become much more difficult. The funds initially allocated for the aviation rear-support services have been redirected to solving other problems. The placement of orders with industry has been disrupted.

The departure of the logistical-support service from the composition of rear support has disrupted the structure of logistical supply, servicing and repair of weaponry and hardware right in the field that had been operating without problems.

The aviation rear-support service does not have the legal rights or monetary means to conclude contracts and acquire products for production-engineering purposes. All of this is resolved according to the "whatever's-left-over" principle. As a result, whereas in 1992 the requirements of PVO aviation for products for production-engineering

purposes were only 50-percent satisfied, only 10 percent of contracts have been concluded for 1993. This, of course, reduces the quality of airfield technical support for aviation flights. Whence all of the other misfortunes, including those they are writing about from the field. We still see no end to the problems. I hope the chiefs of the services will talk about them more concretely.

**PVO Forces Rear Support Aviation Weaponry Service**  
**Chief Lieutenant-Colonel N. Tarasov**

**Background:** Nikolay Anatolyevich Tarasov completed the Perm Military Aviation-Technical School in 1978, and seven years later the Military Aviation Engineering Academy imeni N.Ye. Zhukovskiy. He has served in the Southern Group of Forces and the North Kazakhstan Military District in various positions in the aviation armaments service. He has been chief of the aviation armaments of the Rear-Support Directorate of the PVO Forces since November of 1990.

The uninterrupted support of units with aviation armaments (ASP) is known to be one of the basic conditions for their fighting ability and combat readiness. The pursuit of the necessary measures to maintain ASP in constant readiness, and competent servicing and storage are entrusted to the specialists of our service.

We strive with all of our might to provide cover and reliable protection for ASP stores at air bases and storage areas for missile armaments and ordnance, both in the rear and at the engineering stations in the zones of dispersion of the squadrons of air regiments. This is especially topical of late. There have been instances of penetration by outsiders in certain regions. They continue to attack ordnance stores.

There are also other matters affecting the normal operation of the armaments soldiers. There is a catastrophic shortage of storage space. New storage is being built at an exceedingly slow pace, owing to the reduction in appropriations. Moreover, effective measures are not always taken in the field to avert violations in the organization of storage or the handling regimen.

Inspections conducted by officers of our service show that there have been virtually no attempts at the penetration of stores areas by outsiders in the units where they approach these matters with all seriousness. I would like to note the creative and purposeful work of the chiefs of the aviation armaments services of the formations of Colonel A. Kuzmin and Lieutenant-Colonel A. Zvonov.

There are, unfortunately, still more negative examples in our service than positive ones. They are unable to equip facilities for the storage of armaments and ordnance with technical security devices in some units. There have been instances of unprincipled behavior and a failure to perform their duties by officials.

All of this is not facilitating any improvements in the matter. The question of servicing and technical maintenance is meanwhile becoming exceedingly important. I am not exaggerating at all. The very process of maintaining contemporary guided aviation missiles has become considerably more difficult. The servicing of ASP has become very expensive. Other factors could be cited as well. The old maintenance system is nonetheless being used even on

new types of missiles to this day, where the basic operations are performed at certain time intervals.

This was justified with regard to missile armaments in which mechanical and electro-mechanical structural elements predominated. The elemental base of recent models is completely different. The proportionate share of electro-mechanical assemblies and systems has been reduced considerably. It is thus essential to move from calendar-based technical maintenance [TO] to servicing based on condition, with the volume and frequency of monitoring stipulated by the servicing documentation therein, and the start and amount of TO determined depending on the technical state of the missiles.

The technical condition of the ASP is determined in this context either using the method of monitoring the level of reliability, in which the constituent items are operated until fail-safe with the performance of planned operations to detect and eliminate the defects, or by means of the monitoring of parameters characterizing the technical condition of the units. This would scarcely be understandable to everyone, but it makes no sense here yet and would be very difficult to expand the bounds of the customary and usual.

Matters are also not being improved by the organizational separation of the specialists in aviation armaments at all levels of rear support and aviation of the PVO Forces that exists today. They are performing a uniform combat task, after all. The functional ties of rear-support and aviation elements supporting combat readiness that were prescribed at various times by the guiding documents are complex and contradictory, owing to the varying subordinations. The lack of a unified command and control element or responsibility for the combat readiness of aviation missiles and their maintenance, storage and servicing is not promoting the quality of missile-engineering support.

The servicing of aviation armaments, by analogy with aviation hardware, should be a stage in the life cycle from the moment of its acceptance in the unit from the manufacturing plant or repair element until its shipment for repair or write-off.

The creation of the structure of a unified service for aviation armaments at all levels of PVO aviation would make it possible to eliminate drawbacks and instill order and organization into the support of combat readiness for aviation units.

**PVO Forces Rear-Support Directorate Aviation-Technical Service Chief Colonel L. Preobrazhenskiy**

**Background:** Colonel Leonid Mikhaylovich Preobrazhenskiy has been in the armed forces since 1973. He is 42 years of age. He completed the Military Academy of Rear Support and Transport. He has been chief of the aviation technical service of the Rear-Support Directorate of the PVO Forces since April 1992.

It does not seem possible to cover the whole range of tasks facing the aviation-technical service in a short journal article. Suffice it to say that the service annually orders and delivers to the units more than 180,000 types of items of aviation matériel essential for maintaining the aircraft inventory in combat readiness and supporting the

everyday activity of the flight, engineering and technical personnel and the flights of the aircraft in PVO aviation.

The service performs all of these tasks in constant interaction with the directorate of aviation and the aviation-engineering service [IAS] of the PVO Forces. Experience shows that aircraft are inevitably standing idle, and that the personnel do not receive the matériel that is due according to the standards in a timely manner, at aviation garrisons where constant and businesslike contact and mutual understanding are lacking among the officials of the aviation, aviation-engineering and aviation-technical services. This can be seen very well from the letter of Senior Lieutenant Skorobogatov.

Questions of providing aviation matériel are resolved in most stable fashion by the department for aviation support in the formation headed by Lieutenant-Colonel G. Kovko, who has achieved fulfillment of the plan for expeditionary deliveries to the regions of the Far North.

The financing allocated by the government of the Russian Federation for the provision of aviation matériel in 1991-93 remains at the same level. The prices for it have meanwhile gone up a hundredfold or more.

All of this has forced a review of the whole system of ordering, and a concentration of the principal efforts on obtaining and delivering as fast as possible to the units the spare parts and assemblies only for the aviation hardware that is standing idle and the latest models of aircraft, with the rest of the requirements for them satisfied only through available reserves and aviation matériel obtained from repair and after the write-off and cut-up of aircraft being removed from service.

The situation is complicated by the fact that a considerable portion of the aviation matériel is being produced only at aviation enterprises in Ukraine and Uzbekistan. An inter-governmental agreement between them and Russia on mutual deliveries has not been signed, and the output of this matériel at aviation plants has not been organized.

It follows from this that only the correct determination of the quantity of aviation units, engines, assemblies and other matériel that has served out its stipulated service life, the ascertaining of existing stockpiles in warehouses and their efficient utilization and timely redistribution among the units will make it possible to maintain the aircraft inventory in good working order and support the vital activity of flight, engineering and technical personnel.

Significant difficulties have arisen lately with the delivery of matériel to the consumers as well. Some 22 units of rolling stock were plundered on railroad lines in the last half year alone. The railroad returns the money as compensation for the damages, but as is well known, that does not support the flights or clothe the people. The involvement of transport aviation, continuously occupied with accomplishing the task of evacuating personnel and matériel from the Transcaucasus, Baltic and Central Asian regions, in the delivery of matériel would unjustifiably drag out the time frames for the delivery of the matériel, as well as waste the "precious" service lives of aircraft engines.

I would like to dwell separately on the question of providing flight personnel with flight and technical clothing.

Owing to the lack of raw materials, the constantly decreasing number of enterprises operating and the constant price increases, the enterprises in the woolen industry fulfilled the plan for certain items only by 45-60 percent in 1992, and they have not produced any leather jackets since May of 1991. The command was forced to impose a series of restrictions for that reason.

The supplying units were thus temporarily issued directives as special instructions to issue fur-lined gloves, leather gloves without liners and leather jackets only to pilots, and to issue one pair of fur-lined leather gloves to engineering and technical personnel for four years and an additional pair of fur mittens for one year. These items are not being issued to other categories of servicemen who receive flight and technical clothing.

The service lives of map holders, navigator's cases, inclined map tables, unlined fur trousers and fur-lined cotton items have been doubled. The service lives of shrouds for aircraft have been increased considerably under all climatic conditions.

Taking into account the organizational measures being carried out to cut back the armed forces, the officers, warrant officers and servicemen on conscript service are permitted, (when they wish and by intercession of the commander of the unit), to keep for themselves items of flight and technical clothing regardless of their wearing times, for a fee, when being discharged into the reserves, retirement for years served or under personnel cutbacks.

The prices for the items obtained before 1 January 1992 are defined therein proceeding from their retail prices in 1991 with an increase of 20 percent (value-added tax), while transactions for matériel issued to the personnel after 1 January 1992 are made on the basis of prices from the reference for 2 February 1992 adjusted for retail and increased by 20 percent.

Servicemen who have expressed the desire to continue to serve in the armed forces of member nations of the CIS that have declared the creation of national armies, shall turn over items of flight and technical clothing (owing to the shortage of them) to supply. A delay by servicemen of more than one month in turning them over is considered to be their appropriation (theft).

The measures enumerated are of course forced; the need for them will recede to the extent of the convergence of the defensive interests of the countries that make up the near abroad today.

#### **PVO Forces Rear-Support Directorate Electrical and Gas Service Chief Colonel V. Khokhlov**

**Background:** Colonel Vladimir Ivanovich Khokhlov was born in 1948 in the city of Temirtau. He has been in the armed forces since 1966. He completed the Kiev Higher Engineering-Aviation School in 1971. He was in the department for training supervisory engineering personnel of the VVIA [Military-Aviation Engineering Academy] imeni N. Ye. Zhukovskiy. He has served in Uzbekistan, Turkmenia, Moscow Oblast and Moscow. He has served in positions from the engineer of a fighter regiment to the chief of the electrical and gas service of the Rear-Support Directorate of the PVO Forces.

A great many tasks are entrusted to the "toilers" of the airfields. The safety of the flights of aviation depends to a considerable extent on the quality of their fulfillment, the timely ordering and delivery of electrical and gas equipment and matériel, the organization of the servicing, repair and storage of the equipment, the production of oxygen and nitrogen and the training of the specialists in this service.

There are 150-170 vehicles being operated in every aviation technical unit, 70 percent of which are special ones. These are the oxygen- and nitrogen-producing stations, the transport tanks for liquid oxygen, the gasification installations, the standardized compressor and gas-charging stations, the equipment for electric-power supply and the start-up of aircraft, the check-out and recharging of hydraulic systems (airfield mobile electrical units, electric-motor/generators, electro-hydraulic systems and installations for checking out the hydraulic systems), as well as the means of cooling and heating air (airfield air conditioners and standardized motorized heaters). The aviation batteries—which, as opposed to motor-vehicle batteries, have large capacity, are difficult to service and are very expensive—also have to be serviced. The specialists of this service should thus possess profound knowledge.

The chief of the electrical and gas service of MO [Ministry of Defense] PVO, Lieutenant-Colonel A. Beletskiy, and the chief of the unit's electrical and gas service, Major Yu. Tizengauzen, have labored hard and fruitfully this year to retrofit the fighter air regiment at the Dorokhovo airfield, equipping the regimental technical position with a centralized system for electric-power supply and training the personnel in the operation of the new type of electrical and gas equipment. Eleven units of new electrical and gas equipment have been shipped to this unit from the centralized supply of the PVO Forces rear support, and the UGZS-63OK gas-charging station has been put into service for the first time. Support for the air regiment is difficult, however, owing to the shortage of specialists. There are only 16 people out of the 59 there should be in the electro-technical company, for example, and only three out of seven at the oxygen-producing station.

The physical demands that these people have to bear are not difficult to imagine. This misfortune unfortunately applies to most of the aviation-technical units of the PVO Forces.

I see the way out of this situation in service on a contract basis and in the replacement of military specialists with civilian ones. The commander of the aviation technical unit must be given more independence to hire specialists from the wage fund, and not on a fixed salary. He should determine what specialists are needed first and foremost. This would make it possible to make more efficient use of the personnel and raise the quality of aviation support.

The question of junior specialists in the service has also not been resolved. They were trained up until 1992 in the detached training regiment for aviation rear support in Kerch. The training of aviation specialists has been organized at one of the schools for junior aviation specialists, with the transfer of that regiment to the Ministry of Defense of Ukraine.

Classes could be organized in the future on the basis of that regiment with warrant officers and other specialists of aviation rear support, for example in the fuel services, airfield-engineer service, aviation armaments service and aviation technical service. The performance of these organizational measures would thus best be accelerated to the benefit of the matter.

The necessity has arisen, in connection with the transition to a 1.5 year term of service, for a proportionate reduction in the training and retraining periods of drivers for army conditions.

Drivers in the ranks have been trained in the field since July 1992. The quality of training for specialists, I think, would go up if the DOSAAF schools were assigned to the PVO Forces in various regions, depending on the requirements for driver personnel. We would in that case have a vital vested interest in strengthening those schools with cadres and improving their physical plant.

An experiment would seem possible here—assign several schools to the rear support of the PVO Forces. We have the capability of equipping those schools with new electrical, gas and airfield equipment, the more so as it is constantly being improved. The drivers and other specialists, after completing such a school, would have been purposefully trained and would be engaged while in the aviation technical unit only with studying the specific features of the principles of the special vehicles and their operation at airfields.

The personnel have to master various types of hardware under varying climatic conditions. The advance, careful preparation of hardware and service facilities for the harsh winter and the creation of conditions for the performance of technical servicing, routine maintenance and repairs of vehicles are required in the northern regions and in Siberia. The failure to fulfill the requirements for the preparation of the equipment leads to the disabling of the special systems and a reduction in combat readiness.

Additional spending is required in the northern regions for the capital construction of heating facilities for the service, and locations for the personnel to warm up in the motor pools and on the airfields. These requirements are not always being met. Only 15 of the 180 vehicles are in heated tents, for example, in the aviation technical unit at Berezovka, and there are no heated enclosures for servicing and repairing the equipment. There have been disruptions in flights in that unit as a result, owing to the lack of readiness of the airfield technical support equipment; the technical readiness factor of the vehicle fleet is too low.

We have been forced, despite what is stipulated by regulations, to maintain increased stockpiles of electrical and gas matériel and a dual set of oxygen-producing station in remote and difficult-to-reach areas, in order to support autonomous operations.

One of the principal problems in the Far East remains the supply of oxygen and nitrogen. Many aviation garrisons are stationed large distances from industrial centers, or on islands or peninsulas. Gas is supplied under those conditions using standard oxygen and nitrogen producing stations, and standard electric-power stations are moreover used at five out of twelve owing to the absence of industrial

electric-power supply. There are not enough warrant officers because of the lack of housing. Half of them are missing at six stations, and there are none at all at two in the garrisons of Dzemga and ten sections.

Women, who after the appropriate training are permitted to perform practical work by order of the commanders of the units, are coming to the rescue.

One way of solving this problem is to reach direct, bilateral contract obligations with plants in industry for the delivery of gas. Even those, however, are often not fulfilled. The Daltekhgaz joint-stock company had failed to ship 100 of the planned 200 tonnes of liquid nitrogen as of 1 January 1993.

We are experiencing serious difficulties in financing owing to the unrestrained rise in prices for gas.

The price of one tonne of oxygen was 1,550 rubles, and nitrogen 2,450 rubles, as of 1 January 1992. Those prices have increased significantly today. The spending of monetary resources on payments for gases in the field totaled about 20 million rubles in 1992, which is tens of times higher than in 1991.

The chiefs of the oxygen and nitrogen producing stations in Yelizovo, Captain A. Yermakov, in Burevestnik, Captain A. Dikiy, in Postovaya, Captain O. Pakhvashev, and shift chiefs warrant officers Aksenov, Bilenok and many others are meeting their obligations in organizing the gas-production work successfully in the face of all the difficulties. The repair of the airfield technical-support equipment remains a problem. Two of the five plants for performing major overhauls are on the territory of Ukraine. Our requirements are only met 35-40-percent of the time, and matters are especially difficult with regard to gas-producing and gas-charging equipment.

There are no subunits in the field to perform intermediate repairs on electrical and gas equipment, as a result of which the vehicles are operated from routine through to major repairs. This question has been put before the command more than once, but has not been developed.

The development of the production base of existing repair enterprises in the larger units and detached repair and rebuilding battalions and formations would be expedient, in order to carry out comprehensive intermediate repairs on electrical and gas equipment.

The diversity of the tasks facing the service and how they are performed determine the nature and intensiveness of the utilization of the vehicles. The expenditure of motor-vehicle resources is a problem under these conditions. The personnel are working under greater demands with the intensive utilization of the equipment, and there is not enough time for technical maintenance and routine servicing operations. The consumption of servicing materials increases, and the danger increases of the appearance of preconditions for flight accidents through the fault of the personnel.

The officers and warrant officers of the electrical and gas service, despite all of the difficulties, are devoted to their difficult profession and, in interaction with the other

services of rear support, are doing everything they can to see that the equipment entrusted to them is in combat-ready condition.

#### PVO Forces Rear-Support Directorate Airfield-Engineering Service Chief Lieutenant-Colonel A. Kozhin

**Background:** Lieutenant-Colonel Anatoliy Yuryevich Kozhin was born in the city of Kursk in 1955. He has been in the armed forces since 1972. He completed the Voronezh Higher Military Aviation-Technical School. He has served in airfield-engineering units in the Moscow and Far East districts. After completing the Military Engineering Red Banner Institute imeni A.F. Mozhayskiy, he was assigned to the apparatus of the commander-in-chief of the PVO Forces. He has been chief of the airfield-engineering service of the Rear-Support Directorate of the PVO Forces since September 1992.

The servicing of flight fields, artificial coverings and complex and expensive airfield structures has become markedly more difficult with the appearance of aircraft that have high takeoff and landing characteristics, large flight weights and high tire pressures.

Whereas the length of runways usually did not exceed 1,200 meters by the start of World War II, today their dimensions have increased several times over, and the materials used to construct and maintain them have changed as well. The length of taxiways, aircraft parking areas and the ground portions of flight fields have increased accordingly. Many different structures and systems to support flights have appeared at airfields. A whole series of problems is arising in connection with the preparation and operation of airfields in the regions of the Far North.

This pertains first and foremost to the vehicles that fight ice buildup on airfields. The TM-59 vehicle, developed as long ago as 1959, is still in service in airfield-operations subunits. The inventory of these vehicles is completely worn out, with each of them having been subjected to a minimum of 5-6 major overhauls and in service for some 16-18 years now. The jet engines used on these vehicles, from older types of aircraft, are not produced by industry today. The new vehicles coming to the aviation technical units are equipped with the same engines, which have been rebuilt and assembled from several parts, which in turn reduces their service lives considerably. There has long been no stockpile of these engines in the armed forces, while the development of a fundamentally new vehicle with a new and accessible engine is still not under consideration; this forces the independent manufacture of homemade heating vehicles, with new aircraft engines, made from whatever is available in the field.

All of this pertains to the other vehicles used for the operational maintenance of airfields as well, on which only the base vehicle has actually changed, as a rule, while they essentially remain the same as before with the same production capabilities.

The delivery of new vehicles, especially with the transition of the economy to market relations, is limited and difficult in view of their high cost, the shortage of jet engines, the lack of an adequate quantity of appropriations and the

locations of the principal supplier plants of airfield operational equipment in now-sovereign states. Their overhaul is also performed on the territory of the independent state of Ukraine, which often leads to unwarranted delays in the performance of repairs and their shipment to the units, also reducing the technical-readiness factor of the airfield-operation subunits.

There is also another way of battling the formation of ice on artificial surfaces—chemical-mechanical methods, consisting of melting the ice buildup that has occurred with the subsequent removal of the by-products of the interaction of reagents with the ice. But this does not have full impact in fighting the ice, especially when the temperatures of the surrounding air are considerable, and has a negative impact on the quality of the concrete and the ecology of the environment. These methods can thus be used only in extremely limited instances.

There are other problems connected with providing the aviation technical and airfield-engineering units with the engineering equipment supplied through military-district channels as well. The shortage of specialists able to work with that equipment is also causing enormous unease. The engineering equipment levels in rear-support unit are currently less than 50 percent, and the same goes for specialists. They are being trained in the units, and their professional level clearly does not meet requirements.

There are also not enough junior specialists for the airfield-operation equipment, since the rear support of the PVO Forces has been left without the training regiment that is now on the territory of Ukraine.

Another nuance that complicates the operational maintenance work of airfields is the removal of the logistical-supply service from the composition of rear support; the procurement of national-economic equipment, tools for the performance of operations on the artificial surfaces and operational materials for the maintenance of not only the surfaces of the airfields, but also a host of buildings and structures in the service and technical infrastructure, was carried out through them until quite recently. The rear support of the PVO Forces now does not have an independent body that has the right to order products for production and technical purposes.

These are far from all of the problems arising today in airfield engineering support for PVO aviation. We could talk a great deal more about the extremely low manpower levels of the airfield-operations and airfield-engineering subunits with conscript personnel, or the shortage of officer cadres.

No difficulties, however, remove from the "field" specialists their crucial duties for the reliable airfield-engineering support of the aviation of the PVO Forces.

**From the editors:** *The problems that were raised in this correspondence roundtable cannot be resolved in an instant. Many of the issues, after all, cannot even be removed by the specialists "on high." But they, invested with authority, are nonetheless able to ease the service of those who are below, on the ground, preparing the equipment to go up into the sky. They need only alter somewhat their psychology in relation to the specialists of the supporting services, and*

*focus on the paraphrased words of that well-known song, "The aircraft come first, first the aircraft, and the hardware, well, the hardware later..."*

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## REAR SERVICES, SUPPORT ISSUES

### Statute on Metrological Support

94UM0290A Moscow ROSSIYSKIYE VESTI  
in Russian No 37 (461), 2 Mar 94 p 6

[Statute on Defense Metrological Support in the Russian Federation]

[Text]Procedure for Ratifying Statutes on Metrological Services of Federal Executive Agencies and Legal Persons

1. Statutes on metrological services or other organizational structures for ensuring standardization of measurements by federal executive agencies as well as enterprises, organizations and establishments constituting legal persons (henceforth referred to as metrological services) are worked out in accordance with the Law of the Russian Federation "On Ensuring Standardization of Measurements" and with other normative enactments.

Statutes on metrological services are ratified by those in charge of federal executive agencies or enterprises, organizations and establishments which constitute legal persons.

In statutes on metrological services are defined the main tasks and functions, the rights and the procedure for developing and organizing the work of metrological services. The use of standardized texts is permitted in the preparation of statutes.

2. The establishment of metrological services is mandatory when state metrological control and oversight are applied to:

- health care, veterinary services, safeguarding of the environment, protection of labor safety;
- trade operations and reciprocal transactions between buyers and sellers, including operations involving automatic game units and devices;
- state accounting operations; support of state defense;
- geodesic and hydrometeorological projects;
- bank, tax, customs and postal operations;
- the output of products provided under contract for state needs in accordance with legislation of the Russian Federation;
- testing and quality control of products for determining conformity with mandatory requirements of state standards of the Russian Federation;
- mandatory certification of products and services;
- measurements performed at the assignment of court agencies, the procurator's office, arbitration courts and federal executive agencies;
- the registration of national and international sports records.

3. In cases of the adoption by republics within the Russian Federation, krays, oblasts, the cities of Moscow, Saint Petersburg and autonomous formations of normative

enactments on the dissemination of metrological control and oversight to other areas of activity, the establishment of metrological services is mandatory in federal executive agencies and at enterprises, organizations and establishments which constitute legal persons;

Ratified by Statute of the Government of the Russian Federation on 12 February 1994, No. 100

### I. General Provisions

1. Metrological support for defense consists in actions by the Committee of the Russian Federation to standardize, metrologize and certify the armed forces and other forces of the Russian Federation, (Footnote 1.) (A list of other troops engaged in defense is contained in Article 1, Section 1, of the Law of the Russian Federation "On Defense".) Federal executive agencies, enterprises, establishments and organizations which constitute legal persons, to establish and apply the scientific and organizational principles, technical means, norms and rules essential for achieving standardization and requiring precise measurements in the area of defense.

### II. The Main Tasks of Defense Metrological Support

2. The main tasks of defense metrological support are the following:
  - supporting the functioning of metrological services in the armed forces and other forces of the Russian Federation for purposes of maintaining their combat readiness;
  - ensuring the required quality of weapons, military and special equipment (henceforth referred to as armaments and military equipment), and other kinds of defense products;
  - enhancing the effectiveness of scientific research, experimental design and the production of armaments and military equipment, reducing periods and expenditures essential for creating, testing, manufacturing and operating them;
  - contributing to the enhancement of the level of mobilizational readiness.

### III. Functions of Metrological Services in the Area of Defense

3. The main functions of metrological services in the area of defense are the following:
  - the development and application of metrological rules, statutes and norms, the implementation of metrological control and oversight, the performance of expert assessments, military-metrological accompaniment of the development, the production and the testing of armaments and military equipment;
  - supporting the development of measuring devices for military purposes (Footnote 2) (The term "measuring devices for military purposes," refers to means of measurement developed and/or employed

by the established procedure for making measurements in the area of defense.) including military unit size standards. (Footnote 3) (The term "military unit size standard refers to a standard developed by order of the Ministry of Defense of the Russian Federation and accepted by the Committee of the Russian Federation for Standardization, Metrology and Certification as the basic standard for the armed forces of the Russian Federation.), effecting the development of general tactical and technical requirements and methods of testing this equipment, arranging its requisitioning, development, production and operation;

—performing military scientific research, scientific research and experimental design work in the area of metrological support for defense, including enhancing the survivability, autonomy, mobility and operational efficiency of the military system for ensuring standardization of measurements;

—performing measures of mobilizational preparation of the state metrological service, enterprises, establishments and organizations in industry for accomplishing the tasks involved in metrological support for defense in time of war;

—performing projects of standardization and unification in the area of metrological support for defense;

—training and advanced training of metrologists.

### IV. Organization and Control of Defense Metrological Support in the Russian Federation

4. The tasks involved in providing metrological support for defense are accomplished by the Committee of the Russian Federation for Standardization, Metrology and Certification, the armed forces and other branches of troops of the Russian Federation, federal executive agencies, enterprises, establishments and organizations which constitute legal persons which develop, produce and deliver armaments and military equipment and other defense products, including measuring equipment for military purposes.

#### 5. The Committee of the Russian Federation for Standardization, Metrology and Certification:

- provides interregional and interbranch coordination of the work of ensuring unity of measurements in the area of defense;
- jointly with the Ministry of Defense of the Russian Federation and other interested federal executive agencies, ratifies normative documents defining the procedure for ensuring unity of measurements in the area of defense;
- at the recommendation of the Ministry of Defense of the Russian Federation, makes decisions on classifying technical devices as means of measurement for military purposes.

6. The Ministry of Defense of the Russian Federation:

- jointly with the Committee of the Russian Federation for Standardization, Metrology and Certification, performs the tasks involved in ensuring unity of measurements in the area of defense;
- provides metrological support for the armed forces of the Russian Federation, shapes the concept and the main focuses of development of metrological support and implements technical military policy aimed at ensuring unity of measurements in the troops (forces);
- organizes interaction in the area of metrological support for defense with federal executive agencies to which other troops involved in defense are subordinate;
- orders and finances on a contractual basis scientific research and experimental design work to create means of measurement for military purposes, and their production, and procures such means for the armed forces of the Russian Federation;
- conducts the testing of means of measurement for military purposes designated for use in the armed forces of the Russian Federation, jointly with the Committee of the Russian Federation for Standardization, Metrology and Certification, maintains a special section for the State Registry of Measurement Devices;
- conducts by the established procedure the verification of means of measurement for military purposes employed in the armed forces and other troops of the Russian Federation, and the certification of physical persons as inspectors of this equipment;
- licenses by the procedure established by the Committee of the Russian Federation for Standardization, Metrology and Certification, the activities of military units and subunits of the armed forces of the Russian Federation to manufacture, repair, sell and rent means of measurement for military purposes;
- registers military units and subunits of the armed forces of the Russian Federation engaging in the inspection, manufacture and repair of means of measurement for military purposes;
- performs tasks involved in providing metrological support within the framework of international cooperation and provides technical military assistance to armies of foreign nations by the established procedure.

7. The Federal Border Service, the Main Command Element of the Border Troops of the Russian Federation, the Ministry of Internal Affairs of the Russian Federation, the Federal Counterintelligence Service of the Russian Federation, the Federal Agency for Governmental Communication and Information, the Federal Directorate of Railroad Troops under the Ministry of Railways

of the Russian Federation and the Ministry of the Russian Federation for Civil Defense, Extraordinary Situations and Mopping-Up Operations Following Natural Disasters take part in the coordination with the Committee of the Russian Federation for Standardization, Metrology and Certification and the Ministry of Defense of the Russian Federation in organizing metrological support for defense as applicable to their areas of activity, while troops subordinate to them interact with the armed forces of the Russian Federation to perform the missions involved in providing metrological support for defense.

Interaction among units and subunits of the armed forces and other troops of the Russian Federation is performed by the metrological service of the armed forces of the Russian Federation by the procedure established by the Ministry of Defense of the Russian Federation and coordinated with the federal executive agencies to which the other troops are subordinate.

8. The State Committee of the Russian Federation for the branches of industry, the Committee for Machine-Building of the Russian Federation, the Ministry of the Russian Federation for Nuclear Energy, the Ministry of Communication of the Russian Federation and other ministries and departments responsible for the production and use of means of measurement for defense in the Russian Federation perform jointly with the Committee of the Russian Federation for Standardization, Metrology and Certification and the Ministry of Defense of the Russian Federation, the administration of metrological support for the development, the production and testing of armaments and military equipment, special and other defense products and the creation of means of measurement for military purposes.

Industrial enterprises, establishments and organizations perform the tasks involved in providing metrological support for defense as applicable to their field of activity and in coordination with agencies of the state metrological service and representatives of the military.

9. Metrological services for ensuring unity of measurements are set up to perform the work of providing metrological support for defense in a mandatory procedure in the armed forces and other troops of the Russian Federation.

The structure and the functions of these metrological services and the authority and responsibilities of their officials are established by the corresponding leaders on the basis of normative enactments approved by the established procedure by the Committee of the Russian Federation for Standardization, Metrology and Certification.

**1500 Apartments Under Construction in Rostov-on-Don**  
*94UM0299B Moscow KRASNAYA ZVEZDA in Russian*  
*12 Mar 94 p 1*

[Article by Anatoliy Vorovkov: "Fifteen Hundred Apartments in 12 Months"]

[Text] Construction of a military post for servicemen withdrawn from the Western Group of Forces has begun in Rostov-on-Don. Apartment houses containing 1,500 apartments are planned in the residential compound. A cultural and a trade center, two children's day-care centers, a school, a pharmacy and a polyclinic will also be erected here.

The press service of the North Caucasus Military District told KRASNAYA ZVEZDA that Germany's Hochtief is serving as the general contractor for the construction project jointly with builders of Glavbolgarstroy. Construction is to be completed in 12 months. As of today there are over 22,000 officers and warrant officers in the district who don't have apartments.

### PEACEKEEPING FORCES

**Pyankov Expects Further Strain in Tajik Situation**  
*94UM0307C Moscow IZVESTIYA in Russian*  
*12 Mar 94 p 3*

[Article by journalist Gulnara Khasanov: "General Pyankov Doesn't Believe That the Tajik Opposition Could Reach an Agreement"]

[Text] Russian troops in Tajikistan are apprehensively awaiting the end of the Muslim fast of Ramadan, after which the uncontrollable Tajik opposition will begin active armed operations. Colonel-General Boris Pyankov, the commander of joint peacekeeping forces, communicated to reporters that the situation may grow worse after 15 March.

According to information from the general, antigovernment formations armed with Stingers, mortars and heavy artillery are beginning to concentrate on the Afghan coast.

The frontier regions of Shayertuz, Kumsangir and especially Pyandzh, where according to some data the main forces of the Tajik opposition are concentrated, are evoking serious concern.

The situation in Kurgan-Tyube is becoming explosive. A year and a half ago it was here that the civil war in the republic began, claiming the lives of tens of thousands of inhabitants. Local armed confrontations between uncontrollable groupings that had formerly comprised the Popular Front are ongoing there. General Pyankov feels that "any provocation from either side could lead to slaughter."

The situation in Tajikistan also depends directly on development of events on the Afghan coast. The possibility is not excluded that Afghan General Rashid Dustum, who is an ally of Prime Minister Khekmatiar in the war against Kabul, may add to the troubles of Russian servicemen. Most likely Dustum will begin pushing the detachments of the opposition across the border to the Tajik side. As for whether this prediction is correct, time will tell. But it mustn't be forgotten that the radical faction of the Tajik opposition is supported by the Afghan prime minister.

On the other hand, Western observers in Tajikistan are not prone to exaggerating the scale of the danger from without. They feel that the positions of the powers that be may be seriously undermined by internal political instability.

In the meantime, Russian forces in Tajikistan continue suffering losses. A 30-year old private serving under contract was shot point blank with an automatic round from a passing Zhiguli at a checkpoint of the Kurgan-Tyube regiment.

The term of the mandate of peacekeeping forces in Tajikistan expires on 15 April. Tajik authorities intend to ask the heads of the Central Asian States and Russia to lengthen the term of their stay another half-year. Boris Pyankov has no faith in contacts with the Tajik armed opposition. The consent given in principle by the opposition to negotiations with the authorities in Dushanbe appears to be nothing more than a political gesture, which would hardly remain viable in the evolving situation. The Tajik opposition is heterogeneous. And most likely, Russian First Deputy Minister of Foreign Affairs Anatoly Adamishin was able to attract only its moderate faction.

The positions of the sides are so far apart that it is hard to count on any compromise between them.

## INTERREGIONAL MILITARY ISSUES

**Radetskyy, Kozlovskyy Hold Press Conference**  
94UM0284 Kiev NARODNA ARMIYA in Ukrainian  
3 Mar 94 p 1

[Article by NARODNA ARMIYA correspondent Lieutenant-Colonel Ihor Koshel: "The Ministers Liked More Than Just the Lviv Weather"]

[Text] A press conference was held at the headquarters of the Carpathian Military District by Minister of Defense of Ukraine General of the Army of Ukraine Vitaliy Radetskyy and Minister of Defense of Belarus Colonel-General Pavlo Kozlovskyy. The leaders of the military departments, before answering the questions of journalists, briefly related the essence of the meeting. General of the Army of Ukraine Vitaliy Radetskyy indicated in particular that "I had a planned working meeting today with the Minister of Defense of Belarus. We are very thankful that the Lviv area has received us with pleasant, sunny weather. That fostered a good discussion. We discussed questions of the building development of our armed forces, how technical and medical support will be organized and how the 'Partnership for Peace' will be implemented. We also touched on questions of regional security. We have many common personnel problems. It is well known that many Ukrainians are serving in Belarus, and many Belarusians in Ukraine. Some of them want to return home, and we must devise mechanisms to solve that problem. A series of proposals were thus put forward, and our experts will study these problems and prepare certain documents. We will meet again in April and make concrete decisions."

Colonel-General Pavlo Kozlovskyy also expressed his impressions of the meeting: "The Lviv weather really did seem to incline us toward the fruitful resolution of everything that was discussed in today's conversations. We are working today on the creation of national armies, and we see that without each other's help we will not be able to manage it. Military-technical issues are simply not resolved without outside help. We agreed on close collaboration back in Ashkhabad, and now have met here with our colleagues. I would like to add that we do not have sufficient funds in our state for the normal development of our armed forces. We want to collaborate with our neighbors, with you, in order to ease this problem. The concept of barter exists. We have many military repair enterprises in Belarus that are of interest to the Ukrainian armed forces. You, on the other hand, have things of interest to our specialists. We can and should agree to advantageous collaboration on the basis of fair transactions."

The leaders of the military agencies answered the questions of journalists.

**Question:** A representative of the military department of Russia, Colonel-General Samsonov, was recently saying that combined armed forces of the CIS will possibly be appearing before long. Do you share that assertion?

The Minister of Defense of Ukraine answered that question: "Colonel-General Samsonov can think whatever he likes. It is a matter for us to agree with him or not. We cannot take part in any military blocs whatsoever, in accordance with our Military Doctrine. Much has been written about this in the press. If the decision is made by

the Supreme Soviet or the President of Ukraine on some other type of relations with the armies of other countries, we the military will submit to such a decision. We still have close collaboration with the armies of our neighbors, both near and far. Collaboration such as with Belarus."

Colonel-General Pavlo Kozlovskyy added to what was said by the Minister of Defense of Ukraine: "I asked General Samsonov where he got the grounds to make such a statement. The idea of combined armed forces was not very promising from the very beginning, in my opinion. So another idea has appeared—the creation of a staff to coordinate military collaboration, if only to assist each other in building national armed forces and ease as much as possible the performance of that task."

**Question:** New, Temporary Regulations and other official documents are already being developed and taking effect in the Ukrainian armed forces. Is anything of the sort being planned in the army of Belarus?

"I have seen your Temporary Regulations," said Colonel-General Pavlo Kozlovskyy. "We have also developed our own and submitted them for the consideration of the Council of Ministers of the Presidium of the Supreme Soviet. I think that they will take effect very soon and be translated into the Belarusian language."

**Question:** Could you elaborate more concretely on the collaboration of our two ministries and armies?

"We have a series of projects that have been proposed by the Ministry of Defense of Ukraine and our specialists," indicated the Minister of Defense of Belarus. "There is, for example, a draft program for the training of cadets at higher military educational institutions. I think that we will be able to speak more concretely about bringing that plan to life in April. We also have agreements on the exchange of attendees at military educational institutions with Poland, with the military-medicine academy in particular."

**Question:** How do you regard the agreement on the withdrawal of nuclear weapons from Ukraine, and what stage is that process in?

"I think," said Colonel-General Pavlo Kozlovskyy, "that the decision on how and when to withdraw nuclear weapons from Ukraine is an internal matter for the country's leaders. I cannot comment on that. We are accomplishing analogous tasks ourselves today. Frankly speaking, General of the Army of Ukraine Vitaliy Radetskyy and I did not touch on that problem."

"This is my second meeting now with Pavlo Kozlovskyy," added the Minister of Defense of Ukraine, "and I would like to say that I have never asked what Belarus is doing with regard to nuclear weapons, and he in turn has not inquired into what Ukraine is doing."

"What stage do I think this problem is at? If we want to become a non-nuclear state, then everything that is being done now is a normal and natural process. And it is being done in accordance with an existing document. There is a schedule, agreed on with Russia, and we are fulfilling it. It cannot be stated concretely yet when the withdrawal of nuclear weapons will begin and when it will end. One must understand that it is not just simple freight being shipped."

The utmost assurance of safety is required here, and that requires painstaking preparations of transport, railroad tracks, the appropriate documents and the like. The work is proceeding, however."

**Lebed: Half of 14th Army Cadres Local Nationals**  
*944K0918A Moscow LITERATURNAYA GAZETA*  
*in Russian No 11, 16 Mar 94 p 10*

[Interview with Aleksandr Lebed, commanding General of the 14th Russian Army, by D. Mosiyenko and R. Khotin, IMA Press, special for LITERATURNAYA GAZETA; place and date not given: "The Dniester Region Could Become a Second Yugoslavia, Thinks Aleksandr Lebed, Commanding General of the 14th Russian Army"]

[Text] [Question] On the eve of the parliamentary elections in Moldova, President Mircea Snegur announced that he will insist on the complete withdrawal of your army from the Dniester region in 1994. What do you think about this?

[Lebed] As the saying goes, there is desire, and there are possibilities. When I am asked whether it is good when the troops of one state are on the territory of another one, I answer: It is bad. Must they be withdrawn? Yes, they must. When, is a separate question. When will the economic and political conditions be created under which it will be possible to dispatch trains here for the redeployment of subunits, and so that local women do not assault our units, as happened previously... These conditions do not exist now: One and a half years of peace did not produce anything, negotiations between the sides in the conflict are not being conducted, and, unfortunately, no political settlement is being looked into yet. As for the economic conditions—well, troops have already been withdrawn from Georgia and other republics, as a result of which a hundred thousand officers and warrant officers are dangling between heaven and earth without work, without apartments, and without prospects. This is no longer acceptable, and no one will support this in the future. Diplomatic problems also exist. How, for example, will Ukraine see it if I start to transport weapons and ammunition through it? After all, its railroads will be overloaded, and, indeed, the freight, to put it mildly, is not safe. There is also a technical side to the matter. Taking into account the existing rail lines, loading platforms, and the number of weapons, the redeployment will take two years. This is if there is an uninterrupted pullout—night and day, summer and winter, on workdays and holidays... How can there be any talk of 1994?

To utilize ammunition here is also unrealistic. But now the game is one-sided—leave, and that is all.

[Question] Some politicians, in particular Bundestag Deputy Brigitte Schulte, the leader of the NATO group of observers at the elections in Moldova, believe that the presence of the 14th Army in the Dniester region will complicate Russia's participation in NATO's Partnership for Peace program.

[Lebed] For me, this German woman is not an authority and, indeed, women have nothing to do here in general. Let her come and try to withdraw this army from here. The former Soviet troops have withdrawn from Hungary, Czechoslovakia, Poland, Germany, Mongolia, and Cuba.

This was the first wave and, afterwards, following the division of the Union, the second started. The Western Group of Forces left Germany and the Northwestern left the Baltics. This entire mass of officers, warrant officers, military equipment, and preposterous apartmentless servicemen... The economic situation in Russia and Ukraine is now such that it is impossible to solve the present problem quickly. But since this is the case, it has to be resolved in a humane way. When the question of the withdrawal of the British Army of the Rhine from the FRG arose two years ago, the English calculated that it would take nine years. The Germans checked it out—yes, precisely so. This is the civilized approach.

[Question] Who in the future could take the place of the 14th Army? Perhaps the UN "blue helmets?"

[Lebed] Let us agree that not long ago we were citizens of one country and that we will come to an understanding between ourselves quicker and easier than the Americans, Germans, and English. There are, for example, trilateral peacekeeping posts of Russians, Dniester region people, and Moldovans. There are no interethnic problems among them. And the military commanders know each other, inasmuch as they served in the same army at one time. A certain military-political balance of forces has developed in this region. If it is now crudely violated in a unilateral way... Let us imagine that our army is not here tomorrow—immediately the temptation arises to resolve in one leap and in two hours a problem that set teeth on edge a long time ago. Someone will fill this vacuum. Imagine there is a leap, but victory is not achieved, and a long conflict ensues; but this place is smart, and everyone owes something to everyone else. The map of Europe was redrawn more than once according to the results achieved by the victorious soldiers of one side or the other. In the Dniester-Moldovan conflict it can be proven that white is white and black at the same time, only in one case it is necessary to get documents from the 18th century, and in the other, the 19th century. Therefore, this may be a second Yugoslavia. A lot of sound thought has to be put in before disrupting this balance. I personally cannot yet conceive of how to withdraw the subunits entrusted to me from here. Even if tomorrow someone else is its commander, he also will be unable to do this. The people are not chasing the army from the Dniester region—on the contrary, they are holding on to it.

Because troops were pulled out of the far abroad in a disgraceful record-breaking timeframe, complicated tasks came up frequently: For example, disband a division in two months. And then the question arose: Where is your place of birth? If you are from Tiraspol, let us send you, lad, to the commanding general of the 14th Army, and he will find you a place. As a result, 51 percent of officers and 79 percent of warrant officers I now have were born in this region. Everything got mixed up in the home of the Oblonskiy: The Army is Russian, the last name of the commander is Lebed, his combat deputy is Melnichuk, armaments deputy—Dymar, rear services—Perepadya, and the relatives of all of them are more often than not in Ukraine. But on the whole all this is gibberish that must be stopped as quickly as possible. Ukrainians, Russians, Belarusians—all are Slavs, people of one destiny and blood, and one faith. We have to think about not what

disunites us but about what unites us. But we are divided like Siamese twins that have two heads and one body. If they are separated, you get a hybrid from either one of them. Well, we are now working on hybrids.

[Question] What are relations like between the command authorities of the Army and the Dniester region leadership?

[Lebed] They were never simple. The Tiraspol leaders introduced idiotic money (rubles before 1992 with a stamp depicting Suvorov and a face value), they are poking their nose into other people's affairs, having sent hundreds of assault rifles in October to the White House. They are making decisions on some kind of citizenship, they are introducing outlandish legislation, they have privatized 30 kilometers of the Russian pipeline that goes through the territory of the Dniester region, and they have taken jurisdiction of the air space over the Dniester-Moldovan Republic, while possessing no airport or aircraft. I resigned my commission as a Dniester region deputy, inasmuch as I am categorically against the rude interference in the internal affairs of the state and in the army that I serve. The kind of president and the kind of parliament to have is Russia's affair. The Swedes, Czechs, or Dniester residents are irrelevant here.

## UKRAINE

### Kravchuk, Radetskyy News Conference

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[News conference held by Ukrainian President Leonid Kravchuk and Defense Minister Vitaliy Radetskyy at Yavor Military Training Ground, Carpathian Military District, Lvov Oblast on 23 March—recorded]

[Excerpts] [Kravchuk] I will not make an introductory speech. I know, as do you, that every article or every literary work has three components: Real life, man's ability to embrace it spiritually, and a little bit of imagination. These three components constitute some material—a book, an article or a report.

I would like us to center our talk today around the issue which has been taking place in front of us and also around those issues which are of interest to you. You are welcome.

[Unidentified conference mediator] Ukrainian television. You are welcome.

[Ukrainian television correspondent] Mr. Supreme Commander, President of Ukraine, esteemed Leonid Makarovych. We proceed from the principle of reasonable sufficiency in building the Armed Forces of the independent Ukrainian state. Today we saw quite serious exercises. Could you assess these exercises from the point of view of today and from the point of view of building our state in future? Thank you.

[Kravchuk] Of course, the building, creation, the restructuring of the armed forces of Ukraine.... [pauses] We have completed the stage of restructuring the armed forces and now we have to adapt them to realities which exist, to our internal and external problems. And the main task of the Armed Forces is to defend the state, to ensure peaceful

work of the people. This is a priority. And, of course, we have satisfied ourselves that we have gone through those stages, we have gone through them peacefully, without conflicts and today we have armed forces which are capable, I emphasize this, of ensuring the tasks they are facing.

This does not mean in the least that we have no problems. There are problems of logistical support, military training, the future of our armed forces, equipping them, their prospects for the future, and so on. But there is only one conclusion: The Armed Forces do exist and today the officers, generals, and soldiers demonstrated their ability to fulfill the most complicated tasks. And I am satisfied with the fact that everything was taking place synchronously, according to plan; there have been no emergencies, as they say, and we are satisfied that these exercises have taken place. They were necessary. Strictly speaking, these were the first exercises since our Ukrainian Armed Forces have been in existence. And people must undergo training so as to be able to defend their state and their people.

[Mediator] (?Halychyna Film), please.

[(?Halychyna Film) correspondent] Esteemed Mr. President, esteemed Commander-in-Chief, this is the question of interest to us: What was the army you dreamt about and how are these plans being put into practice?

[Kravchuk] First and foremost, we have been dreaming about the army which any nation and any state can dream of if it set a goal and this goal is concentrated not only in the people's wish, which is quite understandable, but in the conceptual principles of our enactments. We have a military doctrine, a concept, we have enactments on the organization and formation of the Armed Forces, and those Armed Forces which we have today comply with the principles which were approved by the Supreme Council and by the president's decree and which meet our possibilities. We must have armed forces for peaceful work. Neither in our doctrine nor in our concept are we setting or have been setting any tasks whatsoever as far as, for example, any aggressive aspirations or other such tasks before our Armed Forces. The only tasks are to defend people's peaceful work, build an independent state and ensure the fulfillment of these most important priority tasks.

[Mediator] UKRINFORM's Demydenko, please.

[UKRINFORM correspondent Demydenko] Esteemed Leonid Makarovych, by now the people of Ukraine have grown accustomed to seeing you in your capacity as the president and to the actions you take as those of the president. Today, you acted as commander-in-chief of the Ukrainian Armed Forces. How did it feel? What were you thinking about?

[Kravchuk] (?Since) I only took part in the exercise, I believe it was primarily the commander who had the greatest degree of responsibility. It was the commander of the Subcarpathian military district, Colonel-General (Bobkov), and our defense minister, Army General Radetskyy, and all those in the military who supported, planned, drew maps, and marched every inch of that ground in order for everything to take place as planned. This was their supreme responsibility.

When I came here, my aim was to see what we had done in these years to build our own Armed Forces. I can say without exaggeration that a lot has been done and not only with regard to form but also content. Today you heard and saw before your very eyes how this action took place. You heard the Ukrainian state language. You saw the Ukrainian insignia. You finally saw the substance and spiritual structure of our soldiers, officers, generals, and commanders of all ranks. This is what is most important. A new state is in the making and its own Armed Forces are following a parallel course with its difficulties and complexities. Hoping, however, that maybe the time will come when this... [pauses] or it was easy for someone, is unrealistic. [sentence as heard]

[Mediator] Please.

[KIYEVSKIYE VEDOMOSTI correspondent Yuriy Kvity] Leonid Makarovich, please forgive me (?in advance) if the nature of my question is not quite appropriate in the current atmosphere. I believe, however, the people of Ukraine will ask and be concerned about these questions. Do you know that this event of ours cost (?the Defense Ministry) a great deal. Preliminary estimates show it was somewhere in the region of over 40 billion karbovantsi. Do you know that the period (?of preparation), that as far as I know was protracted, when the training ground, understandably, was being made quite ready for this event, cost very much too. Barracks repair and other work was done. In short, forgive me, an awful lot was spent (?in our time of poverty). At the same time, the military district's catering service alone owes around 200 billion karbovantsi for food (?allocated to) the district, and many of the district's servicemen have not been paid for March yet. So do you think this great expenditure was worth what we hoped for and what we saw today? Is there a ratio, a balance in it?

[Kravchuk] Well, all of you may know this saying and know to whom it belongs: He who does not want to feed his own army, will feed someone else's tomorrow. I would like to say this: If there are armed forces which cost a state a great deal of money indeed—be it even not the amounts that you cited; and although I do not know these figures they can generally be specified with regard to the whole of Ukraine's Armed Forces—if these armed forces do not train, they are useless altogether. Following your logic, then, we would have to disarm altogether and, generally, include a some armed forces in, shall we say, the formations that would not even cost 40 billion karbovantsi but a little bit less and generally delete the protection of the state from our agenda altogether, simply delete it.

The thing is, I know that with regard to this—and not only with regard to this—no sooner is something more or less large-scale begun, than someone starts to talk about how much it costs and whether it would not be better in our difficult situation, let us say, to pay wages with these funds. It is logical.

But today you pay wages to the people of an independent state and without the Armed Forces, tomorrow other states will come and have these people, currently working for an independent state, work for another state. No one will then calculate this expenditure. It will then be a quite different situation.

I am not saying that people's life today is good. Nor am I saying they are able to maintain a large army. But should the question be raised of today's difficulties and should nothing be done and should everything be reduced to only the minimum, shall we say, for the people somehow just to survive and, shall we say, have more on the table today—to put it conventionally, 150 grams of meat rather than 100 grams—there may not even be this tomorrow.

In other words, I would not like to reduce everything in this case to a specific exercise. There is strategy and there are tactics. If we have our Armed Forces and have our army, they either have to train and be ready to protect us or they should not be there at all. If you proceed from this, you will think quite differently. It is exactly the way I think, because the Armed Forces cost us trillions rather than billions. So why should we spend those trillions if we know that those armed forces will be unable to protect the state. And if they are to protect us, they have to know how to do this.

[Mediator] Oksana Telentsiy, HOLOS UKRAYINY.

[HOLOS UKRAYINY correspondent Telentsiy] Esteemed Mr. President, I happened to hear today that the excellent machinery that we can see [words indistinct]. (?What is) the future of our military industrial complex in Ukraine under conditions of the acute economic crisis? Thank you.

[Kravchuk] The machinery that was moving in this beautiful area of our land in most cases is manufactured here in Ukraine, in most cases. They are tanks, self-propelled and other systems. Of course, they are assembled from parts that we either buy or receive from other states of the former Soviet Union. We can, however, make them ourselves. We have marvellous opportunities to build cargo aviation. True, we have difficulties, shall we say, with manufacturing high-speed aviation, fighter and other aircraft. But to say that this is the remainder of [USSR] luxury is maybe too early. We have an appropriate program for the military industrial complex to develop. The development of weaponry of our own has good prospects. We have appropriate scientific laboratories, institutes, forces, and key personnel who are at work and quite seriously at work too. But a predicament is a predicament. I absolutely agree with you that we today cannot ensure this is the way we would like it to be done; true, we cannot do it.

[Mediator] REUTER, please.

[REUTER correspondent] Mr. President, (?you will agree that) until recently, the parliament of Ukraine could not determine its position on the START I Treaty. (?As interpreted) in particular by Russia, Ukraine was blocking the Russo-American START II treaty. How do you see the situation now? Is Ukraine still (?obstructing it) or not? And the second question is this: Do you forecast any problems of the kind you had with parliament with regard to nuclear weapons for Boris Yeltsin with his parliament [words indistinct] the START II Treaty which [words indistinct] provides for a large reduction in nuclear weapons? Thank you.

[Kravchuk] Well, START II in this case has no direct bearing on Ukraine. Having signed the trilateral agreement

in Moscow and accords following it, we—our parliament—have determined our attitude towards Ukraine's position expressly and clearly. The latter now is a problem that goes beyond our state's boundaries. As a state, however, that had nuclear weapons, on whose territory there were nuclear weapons, who set itself the task of their elimination and which determined its position on this expressly and clearly, of course Ukraine will accordingly stimulate other states' actions and policies so that the world's nuclear weapons are destroyed altogether. This is our position which we shall uphold. As a member of the United Nations Organization and a member state of appropriate European structures; we shall do everything to achieve this end and shall not obstruct it because this is our position of principle.

[Mediator] MOLOD UKRAYINY, please.

[MOLOD UKRAYINY correspondent (?Volodymyr) Brazan] [Words indistinct] the Ukrainian (?Army's high morale). But are you, Mr President, not (?concerned) about another question? When settling the Crimean issue, for example, and you having to use force, will our state be able to rely on the Russian-speaking Ukrainian Army?

[Kravchuk] To begin with, I do not know what Russian-speaking means. We have Russian, Ukrainian, Polish, Hungarian, and other people populating Ukraine. It is multinational. What language a person communicates in does not determine, shall we say, their spiritual essence and their position.

That is why, this thesis of the Russian-speaking population should be withdrawn as groundless philosophically, historically, or otherwise. It was invented by someone and it seems to me it was invented by politicians in Russia in order to protect, as it were, the so-called Russian-speaking population. What this is, I do not know. There is no such notion. There is nationality rather than language.

So, firstly, I do not want to make a division thus. Secondly, I believe and hope that we shall not have to use our armed forces in Crimea. At any rate, we shall never take the initiative. We hope we shall settle this issue peacefully; shall settle it by way of negotiations, including with those states—or primarily Russia—which have certain interests there.

I do not want any thoughts to remain incomplete. One thing is clear to me: that Russian mentality, the Russian elite, both political—and not only political but the literary and spiritual as well—will never put up with the fact that Crimea does not belong to Russia; never. And the policy will be shaped correspondingly. However, to put up with this, that is to say, to bear this in one's heart and to have the forms of action are quite different things. I believe that there will be enough common sense, in any case, that high-ranking politicians will have enough common sense, and it is they who determine policy today, but not those political forces and trends which exist today here and there and everywhere.

This is the first thing. Secondly, I understand, for example, the policy immediately related to Crimea and inside Crimea. Well, Crimea's drifting can be either speedy or evolutionary, but the drifting... [pauses] in view of the fact that the Russian population is the majority and that there

is interest in Russia, this... [pauses] No matter what happens to Crimea, whether it becomes an oblast or a republic—they believe if it were an oblast it would be easier to cope with problems and if it were a republic it would be more difficult. All these are illusions. The drifting results from the very composition and the fear—the fear, I underline this—that the Ukrainian state, having embarked on so-called nationalist course, will, so to say, lead to the elimination of Russian spirituality, Russian spirit, traditions and culture in Crimea.

But how to do this? For example, to set a course now so that this would be done from inside Crimea. They say that some actions will be carried out there so that Crimea will be further alienating itself from Ukraine and approaching its statehood, as the first step, so as to conceal the genuine objectives, and then, when there is a possibility to conclude treaties, the treaty on accession to Russia will be concluded. This is the policy of Crimea itself.

What is Ukraine's policy? Ukraine is conducting the following policy: To vest the broadest, the greatest possible economic and other socioeconomic plenary powers in Crimea, the rights to tackle all the socioeconomic problems facing Crimea using the possibilities of this region, its resources and specific features. The broadest possible rights. And this is already a fact of life that we have agreed to this. This refers both to the budget and other things. But we are saying sincerely and frankly that we shall never conduct any negotiations with anyone as regards the political status and territorial integrity of our Ukraine, for example, and as regards Crimea.

[Kravchuk continues] What is the current situation in the world? I would like you to understand this, that the situation in the world now is in Ukraine's favor. That both the European states and the United States of America officially underlined that they respect and that they will support everywhere Ukraine's sovereignty, independence, territorial integrity, and inviolability of its borders. Believe me, this is extremely significant.

Way back when the former parliament of Russia took a decision on the status of Sevastopol you probably felt that the Security Council responded instantly. That is to say, it is impossible to tackle issues in Crimea today without taking into account Ukraine's weight, its role and the prestige it gained, both political and otherwise, and its potentials. One cannot tackle these issues, I repeat this, without taking this into account. This exactly is what we proceed from.

In other words, we shall strive for mutual interaction with all forces. We would like to take into account the interests, I emphasize this, in this region and the interests of Russia. Our attitude toward policy is realistic and we do not want, let us say, to think that this is the matter of concern for one state only. At present the interests of many are interlaced there. We would like to take this into account and we shall propose how to do this. However, to raise questions about any political changes, about territorial or any other changes, this will never be allowed to happen—never. I would like everyone to be aware of this. Territorial integrity, sovereignty, and independence are the bounds for policy, the bounds beyond which no one will make any steps. The one who will make them has no right to respect

himself and he cannot be considered to be a politician. Everyone must be aware of this. And we shall never allow anyone to go beyond these bounds. We ourselves do not pass them and we shall not allow anyone to do this. We shall be defending these bounds.

[Mediator] Mykhaylo Soroka, URYADOVYY KURYER.

[URYADOVYY KURYER correspondent] Leonid Makarovich, [words indistinct] prior to your visit this morning to the Lvov region, U.S. Defense Secretary William Perry had departed from Kiev. What are the main results of his visit to Ukraine that you could emphasize, and will the Ukrainian-American dialogue continue?

[Kravchuk] Well, to begin with, Secretary Perry came on the instruction of United States of America President Clinton, to fulfill the accords signed by us in Washington. I can say that the negotiations held were interesting, constructive, and fruitful. Not only were all the Washington ideas were realized in Kiev, but also something in addition to them. We agreed and signed documents on increasing servicemen's housing construction funds and social security, which will become a reality in the very near future and will be done. More money was given to conversion and other purposes relating to the elimination of our nuclear weapons. We placed the main emphasis, however, on how the officers and servicemen who serve in the army, will be provided for socially at present.

Secondly, the delegation's composition was rather wide-ranging. There were, you see, rocket technology specialists there and there were negotiations in connection with possible civilian use of our rocket technology. There were conversion specialists and professionals who will immediately deal with the verification of nuclear weapons elimination. This was a representative delegation dealing with everything ranging from the armed forces to space. On each of these issues, we made an important step forward.

[Mediator] Another question please.

[UNIAN correspondent Volodymyr Ivakhnenko] It has become known from unofficial information that the Russian side has refused to form a commission which would begin an inventory of the Black Sea Fleet jointly with the Ukrainian side. What is your vision of a settlement to the Black Sea Fleet issue on the eve of another round of talks with Russia?

[Kravchuk] I can say that to date there is Russian Prime Minister Chernomyrdin's instruction to form such a commission for it to start working. There are problems. I have no precise information about who it was who refused. The only thing that I do know is that there is no other decision by the head of the Russian Government. So if there are any problems, I hope they will be resolved. If this was not done on 15 March it can be done on 10 April. One cannot, however, say that this issue was struck out from the agenda altogether.

[Mediator] Your question please.

[UkrKinoKhronika studio correspondent, name indistinct] I have a question for Mr. Radetsky. Do you find today's exercises successful and do you think it worthwhile

for the Ukrainian artillerymen to have shelled a church at the firing range given that the issue of religion is so complex now in Ukraine?

[Radetsky] Firstly, yes, the exercises that were held today, indeed, were expedient. This should be done. The president as the commander-in-chief has already stated this to you today.

Secondly, no artillery, by the way, shelled the church because, all precautions taken, artillery fires shells from the flanks rather than over the heads of the forces on the offensive.

Thirdly, we know very well the remarkable history of this firing range. I know Mala Vishenka and Velyka Vishenka (?which used to be there). Today, incidentally, we jointly with the Lviv region administration dealt with this problem. So I think everything is normal and natural and what had been planned was fulfilled under the plan. I do not understand your question: What does this church have to do with it? No one, incidentally, fired at it, not even soldiers from their automatic rifles. And, by the way, no one has been shelling it since 1980, no. No one has been shelling it since 1980; the people's eyes have opened.

[Kravchuk] The only thing I would like to add is this: Since 1917, not only this church but all the churches on our soil, and not only the churches but also the people who believed, believe, and will believe in God, have been so shelled verbally and their soul so ruined that this church is like a silent witness to what has been done. The people, you see, have already understood it themselves, as the minister said. One cannot do this to the people, the fruit of their labor and their belief. It is improper.

That it has been understood is good. Of course it has so happened that it has taken place and there is this firing range. But what can be done now? We cannot, after all, shut it down, because colossal means and resources have been invested here and it is needed. It is needed in order to train and practice the skillfulness of our armed forces.

[Correspondent] How well are the Ukrainian troops prepared to take part in the Partnership for Peace program and joint military exercises?

[Kravchuk] Partnership for Peace does not foresee the participation of Ukrainian troops, because it is a partnership for peace. [sentence as heard] There is another clause there, a clause saying that during NATO military exercises, our units and troops could, with our consent, participate, in order to practice certain models for themselves, not to take part in any possible military action. That is impossible. We are taking part in the action in Yugoslavia, with our battalion, which is involved there in order to ensure normal life, and only that. This is agreed with the UN Security Council. Therefore, some unit could, with our consent and the consent of the relevant NATO structure, take part in joint military exercises, but not more. This does not imply our interaction with NATO troops, because we are not a member of NATO.

[Moderator] Mykola Yurchyshyn, SILSKI VISTI, please.

[SILSKI VISTI correspondent Yurchyshyn] Esteemed Mr. President, is there an alternative military service in Ukraine? According to the law, there should be one.

[Kravchuk] What alternative service?

[Radetsky] This is laid down in the law, and the law should be adhered to. Incidentally, there are very few objectors, those who refuse to carry arms, in Ukraine today. These include sick people or those who belong to religious movements. We are solving these problems and we are working on them. Moreover, the law speaks not only of alternative service, but also about contract service which we also plan to practice in future, as right now there is no money to maintain a professional army, although, it would in fact pay off and would be cheaper for Ukraine to maintain than these boys we are drafting for a year and a half, who are wrecking everything and for whom this time is too short to embrace the material they are to study.

[SHLYAKH PEREMOHY correspondent] I have two questions, if I may. The first one is this: The president of Ukraine is at the same time the commander-in-chief. But we now have another president, the Crimean one. Are you going to share any powers of the commander-in-chief with him? [Kravchuk and Radetsky are heard laughing] My second question concerns the Defense Council of Crimea which has been set up there. Is it a state structure, if yes, what functions has it been charged to perform?

[Kravchuk] This follows from your first question about Crimea, and I will answer it more broadly. There are a few aspects that probably need clarification. There is Ukraine's legislation, its Constitution and laws, and there is the law on delimiting powers between Ukraine and the Republic of Crimea. These laws exist and according to these laws, the Crimean president cannot—being absolutely governed by the legislation—shall we say, command, influence or regulate any forces. This is the prerogative of the Ukrainian president only. Nor can he, let us say, under our Constitution have any military structures. Moreover, our law, our legislation does not allow military formations that are not provided for in our legislation. This not only applies to Crimea but to everyone and everywhere.

Thus, what is being done, even if it is only beginning to be done, is unconstitutional and unlawful and we shall be bringing everything in Crimea in line with the legislation.

[Radetsky] Can I answer?

[Kravchuk] Yes, you're welcome to.

[Radetsky] As for the question on the Crimean Defense Council, the only council we have is Ukraine's Defense Council. I know of no such council as the Crimean Defense Council. This is an invention. By the way, the Odessa military district commander and the 32nd Army Corps commander are present here today, who strictly perform their duties within the framework of those entrusted to them by the Defense Council of Ukraine. There is and there will be no other council.

[Kravchuk] So, we shall execute the Constitution and laws of Ukraine, and any statements that there is no need for the Ukrainian Army in Crimea and such like, are groundless legislatively and have no foundation except for ambitions and wishes. That is why they are not the basis for practical moves. I have instructed Ukraine's appropriate services so as for them to work and bring everything in line with the legislation.

By the way, you see, no matter how agitated they were and no matter how insistent they were on a referendum or a poll, everything boiled down to a poll to be conducted by the president. Crimea's Central Electoral Commission has refused to conduct this poll. All it is doing is to provide the premises and hand out the ballot papers. It will neither calculate nor count or make conclusions on this poll. The poll in Crimea, strictly in legal terms, thus amounts to an opinion poll by the presidential team. You know, there is no such thing anywhere, either in the laws or the Constitution. Anyone can conduct such a poll, including the president. In this case, however, it is not legitimate as it even is conducted without commissions or any legalization by, shall we say, a legitimate body. This is being done by certain officials authorized by the president. This he can do and I am calm about this, because any analysis [pauses]—I do not know to what degree it will be legalized, how its authenticity can be verified and so on. So what conclusions will be drawn from this? None. There simply will be expenditure. That is all.

[Mediator] Questions are welcome.

[Unidentified correspondent] The Defense Ministry's TV. I have a question on armed forces reduction and how it will affect state security.

[Kravchuk] We have to have sufficiency in our defense capability and to do so our armed forces have to be sufficient, as it were. There are materials providing for their numerical strength, which is 450,000 for the armed forces at this stage. We shall approach this and then see what the situation is and what the quality of our armed forces is, because, shall we say, if they are to be professional armed forces, probably—we shall also settle this issue in due time—a different type of expenditure, a different type of weaponry and a different number of men will be involved. Meanwhile, we shall act in accordance with our military doctrine approved by the Supreme Council.

[Radetsky] Leonid Makarovych, can I add something?

[Kravchuk] Yes, you are welcome to.

[Radetsky] The Defense Council, by the way, has held a sitting and you tasked me with clarifying it. The thing is that this numerical strength of 450,000 is as of 31 December 1994, while you assigned the task of examining this issue and reducing it to 420,000. There is such an instruction from the president and we are dealing with this.

[Kravchuk] This is not, shall we say, a magic number we have to hang on to. Firstly, it is the quality of weaponry, the quality of armed forces training, the situation outside the country and the international and domestic situation, that will dictate the numerical strength and quality of our armed forces, rather than simply, shall we say, recording it in writing and hanging on to this number.

[Radetsky] (?Including) materials and machinery provision.

[Kravchuk] That is right.

[Lvov television correspondent] Mr. President, due to certain circumstances we have two military districts, the powerful Precarpathia and Odessa districts. Could you

say, please, if there is an opinion that the eastern part of the country remains as if unprotected, as if there is no mighty force guarding the borders there.

[Kravchuk] No, this is not the case. There is the Odessa military district there. We have appropriate structures. We also have the National Guard which performs its functions and which, by the way, actively participated today. The National Guard commander is present. So, in other words, we have the appropriate armed forces and appropriate military structures etcetera, shall we say, of all ranks to ensure the tasks set by the Ukrainian state are performed.

The only thing I would just like us to proceed from, is this: We are not training ourselves to make war. We are training ourselves to protect ourselves, which is our concept of principle. We are not and shall not be first to raise our hand against anyone, God forbid. Ukraine is a peaceful state and, incidentally, it has always been peaceful. It has not been at war with anyone. We do not have any territorial claims against anyone. In our policy and our statements, we have never expressed even a hint that we have some claims to someone, be it our neighbors near or far, no. We say [pauses]—this is what we state. But we, at the same time, say we do not want anyone to have any such claims against us. Should there be any, however—and there are some let us not pretend there are not—we shall show we shall protect our interests.

If anyone tries—[pauses] not by means of established international principles which, by the way, have been worked out in detail both in the Helsinki process and at the United Nations Organization, worked out in detail, and the world [pauses]—this is the most sensitive issue: Why is the world so sensitive when someone violates this? Because here lies that most dreadful line between peace and war.

Therefore, we say that we shall not make even a single step to cross this line. But the one who will do this not by means of those established norms existing in the world but who will try to do this by means of force, it is clear that it will be countered by force. There is no other option.

[Radetsky] Leonid Makarovych, the esteemed gentleman who put this question had in mind not only this but also the fact that the Odessa district is so large while the Precarpathian district is so small. And this issue was already touched upon [word indistinct].

[Kravchuk] Well, we are currently working out our structure.

[Radetsky] Territorially.

[Kravchuk] We are working it out. For example, there were staff exercises and they have been held for two weeks. Is that right?

[Radetsky] They are still in progress.

[Kravchuk] Then I will continue to analyze. There, at the exercises, we were talking about how to build our territorial defense so that it would be adequate to the situation. And this will be changed. And, again, this is not something established once and forever, but this is a process.

[Radetsky] I would like to explain as a military expert that the question is not how many troops there are in a military district, but what these troops are, what their

mobility is like, what their combat readiness is like, so that we could, in any location where our security is being threatened, concentrate these forces in order to solve the problem by means of a political dialogue, not by force. We should create formation in that location so that those threatening us would give up trying to fight against us but would solve the conflict in a political way.

[Passage omitted]

[Correspondent from NARODNA ARMIYA] Leonid Makarovych, these are the first exercises held after the Army General of Ukraine Vitaliy Hryhorovych Radetsky was appointed Ukraine's Defense Minister. Today [word indistinct] not only the combat activity of the troops but also Vitaliy Hryhorovych were assessed.

[Kravchuk] You know, when Vitaliy Hryhorovych took the post, he got down to practical deeds. He is an experienced person who made a career, in different places, as they say, and at different posts, from a platoon commander to the minister. He knows all the ticks and hooks which they draw on maps and which they dig in the earth. He knows where one should stand and what one should do, and he himself can replace a company, platoon, regiment, battalion, division, or district commander. He is a genuine minister. A person who has not gone through all this will experience difficulties. This is why I appreciate his experience. This is the first thing.

Secondly, he is a person who wants that the armed forces be functioning as a clockwork mechanism and who knows what is to be done toward that end. He is a man of responsibility.

I know that here, especially on the land of Galicia, there is much talk about the former minister, Mr. Morozov. He initiated and applied certain efforts so that we could have our armed forces. And no one can deny this fact. But it turned out so that [pauses]—one can only do what he is able to do. And one will never do more than that. He did what he could do. Being aware of the fact that this post is rather serious and has a lot of trends and philosophical and political interpretations around it, we were doing everything possible to preserve the status quo, although it was not easy to do this. And no one should be blamed. However, the situation, both in the center and in the regions, and in the troops—I know this—was such that this issue had to be solved. And then the minister knew this from the conversation he had with me. Despite the fact that I, nevertheless, submitted his candidacy to parliament, he came and asked that his candidacy be withdrawn.

#### MoD Press Service Objects to Publication of Information on Weapons Transport

94UM0305B Kiev NARODNA ARMIYA in Ukrainian  
12 Mar 94 p 1

[Statement of the Press Service of the Ministry of Defense of Ukraine]

[Text] Russia's mass media, and in particular Interfax and the newspaper *Sedognya*, have recently been circulating reports about transports of nuclear warheads leaving the territory of Ukraine to be handed over to the Russian side in accordance with the international and legal commitments assumed by Ukraine. In so doing, they also make

public information that is of a strictly confidential nature, citing "informed sources in the Ministry of Defense of the Russian Federation."

The ease with which some journalists, citing Russian military sources, are publicizing information about the timetables, dates, and destinations of the transports of nuclear ammunition is astonishing; especially as the Russian specialists cannot help but be aware that such actions create a real threat to the security of transporting nuclear warheads.

Apparently, certain circles in Russia are interested in slowing down or even bringing to a total halt the planned removal of nuclear armaments from the territory of Ukraine. Obviously, were this to happen, Ukraine would again be accused of exhibiting a lack of good faith and obstructing the process of nuclear disarmament.

The Press Service of the Ministry of Defense of Ukraine hereby declares that such actions are provocative and intolerable, inasmuch as their aim is to turn up the tension surrounding Ukraine's nuclear disarmament a notch higher.

Ukraine remains faithful to her commitment to remove nuclear weapons from her territory. The specialists responsible for the security of these transports are taking all the necessary steps to safeguard this process from any unexpected eventualities.

At the same time, because of the indiscretion of Russia's "informed sources," Ukraine is now forced to take additional steps to alter the exact schedule and routes for transporting nuclear warheads.

#### **Former Defense Minister Criticizes Kiev's Policy**

94UM0304A NEZAVISIMAYA GAZETA in Russian  
12 Mar 94 p 3

[Article by Vladimir Skachko under "Ukraine" rubric: "There Is Simply Ukraine; The Former Minister of Defense Criticizes the Policies of Official Kiev"]

[Text] The round table on the problems of the national security and military policy of Ukraine that was prepared by the "Elections-94" press center essentially turned into a press conference for one of the candidates for people's deputy, former Minister of Defense Colonel-General Konstantin Morozov, whose ratings are rather high after he left his post on account of disagreement with President Leonid Kravchuk on many questions of current interest.

In responding to the question of Russia's claims to a special role in the post-Union territory, Konstantin Morozov declared that Moscow has no basis for this and, moreover, without the sanction of the UN cannot perform the role of peacemaker utilizing its armed forces. In the words of Konstantin Morozov, the military conflict in the Dniester Region arose largely precisely because of the presence of the 14th Russian Army there and "they drew Georgia into the CIS because of a military conflict." Konstantin Morozov declared that he supports the demand for the immediate withdrawal of Russian troops from foreign territories and that in his possible action as a deputy he will never allow Ukrainian forces to participate in operations in hot spots without UN permission. And in general, with respect to the resolution of the delicate

problems in interrelations between former allied republics, Konstantin Morozov called on everyone to "get used to the fact that there is no longer a territory of the former USSR and there is no young, sovereign, or some other Ukraine, but simply the independent state Ukraine."

Konstantin Morozov said that he supports Ukraine's signing the Lisbon Protocol to the START-1 Treaty because this would allow it, along with Russia, to be a full participant in the world process of nuclear disarmament and to be a country responsible for destroying its share of nuclear weapons. The only mistake of the Ukrainian leadership, in the words of the general, is the fact that it did not define the new status of Ukraine, with which it must join the Nuclear Weapons Nonproliferation Treaty. In his opinion, Ukraine must join with a special declaration of its support of the idea of the nonproliferation of nuclear weapons on the planet and the control of their transfer to third countries, and it must define its status as a "temporary nuclear state that is reducing its share of nuclear weapons from the former USSR."

In this connection, Konstantin Morozov spoke out in favor of the establishment of an international commission to monitor the dismantling of the nuclear weapons removed from Ukraine, because "Ukraine really does not have full assurance that the missiles will be destroyed rather than redistributed."

The former minister of defense also made a number of other comments differing from the point of view of official Kiev. In particular, he criticized the trilateral Moscow declaration, calling it a "naked declaration that does not even guarantee the political interests of Ukraine." In the opinion of Morozov, it is necessary to sign a trilateral agreement that would be subject to ratification in the parliaments of the three countries and that would provide for international control of its fulfillment by them. It should be noted that this is perhaps the most widespread point of view in Ukraine, which finds a large number of supporters in different political and military circles.

Touching on the problem of the Black Sea Fleet, Konstantin Morozov stated that he supports any solution of the problem of the Black Sea Fleet, whether it be a gift, a transfer to Russia, or division and destruction, but under one mandatory condition—the removal of the Fleet and its infrastructure from Ukrainian territory. In his opinion, the most advantageous solution for Ukraine is the 1992 Yalta agreement on the division of the Black Sea Fleet into Ukrainian and Russian parts and the establishment of naval forces of Ukraine and Russia on this basis. At the same time, Konstantin Morozov declared that the military forces of Ukraine are adequate to resolve the problem of the Black Sea Fleet in favor of Ukraine, but "these forces must not be the basic argument; rather it is necessary to seek political solutions for every question." Konstantin Morozov also said that he supported a political solution with respect to the Crimean problem, which he called artificial and produced by the political passivity of official Kiev. In the opinion of Morozov, Kiev must pass laws that would first stabilize the situation in the Crimea and then would make Crimean legislation correspond to that of Ukraine.

**Military Industry Leader Discusses Support for National Defense**

94UM0241A Kiev NARODNA ARMIYA in Ukrainian  
2 Feb 94 p 2

[Interview with Armed Forces of Ukraine Armaments Staff Directorate for Industrial Orders and Liaison Chief Major-General Viktor Petrovych Vashchylin by NARODNA ARMIYA correspondent Lieutenant-Colonel Oleh Vachayev under the rubric "The Defense Industry Must Work for Defense": "Everything Must Be Done To See That Scientific and Production Potential is Preserved"]

**[Text] Background information:** Born in Altay to the family of a peasant. Completed the Omsk Tank Technical School and the Armor Academy with distinction, and then the faculty of the command and engineering personnel of the same academy with a gold medal. He has served both in the field and in production—in the Group of Soviet Forces in Germany, in the Far East and Carpathian military districts, and in various command and engineering posts. He has been chief of the Directorate for Industrial Orders and Liaison of the armaments staff of the armed forces of Ukraine since November of 1993.

*He is married, with a son who is a senior lieutenant following in his father's footsteps, serving at a repair enterprise.*

[Vachayev] Viktor Petrovych, a map of Ukraine takes up a good half of the wall in your office, with the enterprises that make up the defense industry marked on it. I have heard that the production potential of the VPK [military-industrial complex] here is quite strong, but it turns out that I did not imagine the true scope of it. Quite a 'domain' for just your directorate...

[Vashchylin] It is indeed still a novelty that a unified directorate for orders of weaponry and military hardware has been created here. Another two structures actually exist that perform some of these tasks, but the principal burden falls on us.

I would say for comparison that there were 39 directorates that placed orders in the former Union, with personnel numbering some 3,900. They did not make it to a unified structure then, even though they tried...

I would thus like to emphasize that we are not only new people in the system of procurement of weapons and hardware that are series-produced, but that we do not even have the opportunity of making use of experience in that work. True, such a system exists in the highly developed countries—the United States and France, among others—but there the unified body is subordinate to a specially assigned deputy secretary or minister of defense. This emphasizes the importance of the development and ordering of weaponry and military hardware, which should be under unified supervision.

If we take the life cycle of an item as a whole, then there are the stages of development, the production itself and operation... Those stages were concentrated in the same hands, but in different directorates, in the former Union. So the items were created, so to speak, nearby. Though the departmental barriers were not always helpful...

I thus feel that the unification of orders for industry in a directorate is the most expedient. Moreover, under conditions where military acceptance offices monitor the development and production at the design bureaus and we have information pertaining to operation through complaint work and trips to the field, we come to encompass the whole cycle in general.

[Vachayev] I know that discussions have been underway for a long time with regard to where the orders to industry should originate. If this work is concentrated in the directorate, does that signify that the question has been removed from the agenda?

[Vashchylin] This is quite a difficult problem. The viewpoint used to exist that money for procurements had to be given only to us and no one else. But life has shown that the supply directorate should have some procurement functions. There has to be a lead or general customer who fills orders for the armed forces as a whole, with regard to scientific developments, a large range of items and so on. Certain spare parts and materials should be partially procured by the supply structures as well.

Why? Because the regiment needs funds, and little gets to the units under centralized procedure, as life has shown. They are, moreover, linked with local industry; it is easier for them to acquire everything they need. The regiments, divisions and districts must be given that money, but supply services, which are above them, are able to obtain funds for procurements. But the chiefs of the directorates to which the units are subordinate have to designate and ascertain the range of what is needed by the troops. Experience shows that all of these tasks are accomplished faster through local capabilities and knowledge of their own requirements.

Territorial supply bodies exist as well. The directorates themselves, concluding the corresponding agreements, should obtain what goes through them. Otherwise, there would be an unjustified rolling of matériel and money across all of Ukraine.

And, on the contrary, what comes from the plants, from heavy industry, has to be received by a unified body. The security measures, transport, distribution and other issues are adhered to in that case.

If we are to speak of the long term, then there should be bodies, albeit small, within the concerned directorates that place orders in the local areas. This is because there are issues that need to be resolved in the interests of one's own branch of the service or subordinate units. But all of this can happen provided that we become, so to speak, richer.

[Vachayev] The question arises of interaction between you and other bodies. Is there understanding?

[Vashchylin] Work has become considerably easier since those directorates delegated to us some functions pertaining first and foremost to large orders, the major items. Moreover, the chiefs of departments and groups in our directorate visit the chiefs of other directorates every week, where they have an exchange of information and seek out opportunities for the common resolution of their problems. We are actively involving the directorate in checking the field offices at enterprises on the pursuit of cadre policy. We already have a Statute on Interaction that has

been approved by the deputy minister of defense for armaments and chief of armaments for the armed forces of Ukraine and coordinated with the chief of every directorate and legal scholars. It clearly defines where our work and where the work of the directorates begins.

This work procedure will also ease the signing and coordination of all the necessary documents at various levels. Imagine if every directorate chief would have to run around from office to ministry with his questions, wasting time in vain and repeating the same work. And there will be no order then at all...

[Vachayev] The next question, no less important, is what the directorate is engaged in. I have in mind the field or acceptance offices. I know that when the problem of the co-existence of your structure and the supply directorates was being debated, the latter wanted them to be left with them...

[Vashchylin] The number of personnel at the acceptance offices was reduced by 37 percent through combinations and the existence of a unified directorate for placing orders. There used to be four or five offices operating at each plant, with each branch of the service performing their own acceptance. Now that is gone. But unified acceptance at the enterprises, after all, works in the interests of the tankers, the engineers and the truckers.

We have a decree of the Cabinet of Ministers of Ukraine on the procedure for the organization and interaction of field offices and industry and a document on acceptance that has been coordinated with all of the directorates, in which we have assumed all of the contemporary requirements for that body, questions pertaining to monitoring and product quality.

A uniform approach has been devised for the organization of complaint and claim work as well, but it still requires refinement from a legal standpoint.

[Vachayev] Viktor Petrovych, whatever issues I may raise with you, it all comes down to questions of financing and money. I know that these problems exist with you as well, as with all of the defense industry as a whole. I would like to clarify a thing or two in that area as well.

I'll start with our own sore spots. It happened that we in the directorates that place the orders do not have a single one of our own business accounts. All of the transactions are performed through the Financial Directorate of the MO [Ministry of Defense]; that is, it takes all of the responsibility upon itself. And that deprives us of the right to lodge any complaints against suppliers. We do not have the opportunity of having any direct influence on the matter in which we are engaged from the economic and legal standpoints. What a paradox!

Another problem consists of the fact that the absence of our own business account leads to our financing according to the whatever's-left-over principle. The money that is allocated only to the Financial Directorate (and we are not able to have any influence on the Ministry of Finance) goes to maintain the armed forces, and some of the leftovers to the things we do.

True, it is not just a matter of the lack of a business account here, but rather the need for a budget as such. The

experience of many countries, however, shows that the funds that are required just for the development and procurement of armaments and hardware are from three to seven percent of the gross national product. Here, the minimum value of that indicator goes to maintain the armed forces as a whole. However, if you take my own question of procurements, then last year we procured 12 percent of the new weaponry and hardware, and the rest went for spare parts. Talking about the budget, meanwhile, we received half of the minimum we were planning on.

The situation this year is even worse. They did not want to leave even a line on financing a series of matters, including procurements, when they were formulating the budget; even though we are planning to obtain a little more than 20 percent of the new models of weaponry and hardware...

It is not just a matter of the fact that the armed forces require new hardware and weaponry. There are more than 700 enterprises in the defense industry standing behind these figures that do not have enough work. And that, as they say, is threatening unforeseen consequences.

If the question of creating a national program of shipbuilding and financing for it is not resolved in the next couple of years, for example, the slipways will be engaged in just so-called dollar projects, and we will not be able to place a single order there. Whereas they used to feel in the defense industry that getting work from the MO was a guarantee of stability, the opposite idea prevails today: Have as little as possible to do with defense orders as quickly as possible, because there are no guarantees of payments. And that could lead to the disappearance of the defense industry, as such.

[Vachayev] Stock offerings and privatization, which could affect the former enterprises of the defense industry, are beginning nonetheless...

[Vashchylin] I am convinced that the basic enterprises of the defense sector must be subordinate to the state, and perhaps to the Ministry of Defense. We could perhaps go the way of acquiring 51 percent of the shares of stock in those enterprises. Turning to the experience of the developed countries, it must be pointed out that a state sector remains in the defense industry in them. And we should spare no funds in this, since no owner will accept an order if it does not satisfy him ahead of time on a financial plane.

The very acute question of organization within the framework of a reasonable cycle of production of weaponry and hardware of our own also arises here. It is considered expedient when that cycle is 40-60 percent self-contained; that is, it is virtually nowhere self-contained within the framework of a single state. When resolving this issue we should decide, figuratively speaking, who we are. Keeping in mind that we have 100 percent weaponry and hardware from the former Union, and almost a quarter of the entire defense output was made by Ukraine, it is not hard to find the answer. I am convinced that full-fledged and mutually advantageous ties with Russia will provide work for our enterprises, will provide the necessary funds and will facilitate the maintenance of combat readiness in the armed forces of Ukraine at a suitable level.

There is another reserve that we are able to utilize—the arms trade on the world market. Recall that the USSR

received 29 billion dollars a year from sales. There is no more Union, but a vacuum has not been created in the arms market, since the developed countries have instantly taken its place. They felt this in Russia, and they began thinking about their own weapons program and access to trade somewhere around a year and a half ago. The corresponding structure, along the lines of a defense export organization, has appeared. So why are we marching in place? We have a thing or two to sell, believe me.

There is another problem that exists that I would put in first place—the preservation of scientific potential. The lack of funds and orders is leading to the fact that the smart ones are leaving for commercial structures. The scientists and designers, in my opinion, must be paid—and paid good money—even when there is no work. If work should appear, and I am sure it will, and there is no one to do it, enormous amounts of money will not help.

In summing up our discussion, I would like to say that I see a threefold task, on which both our directorate and the defense industry as a whole are working, namely to preserve scientific potential, industry and the output of defense products, both in peacetime and during special periods.

[Vachayev] Thank you for the interesting conversation.

#### **Scientific Support for Defense Noted During Leaders' Visit**

94UM0241B Kiev NARODNA ARMIYA in Ukrainian  
17 Feb 94 p 2

[Article by NARODNA ARMIYA correspondent Lieutenant-Colonel Serhiy Chornous: "We Need To Preserve What Has Been Done and Move On to New Solutions—Said President of Ukraine Leonid Kravchuk in a Discussion With a NARODNA ARMIYA Correspondent During a Visit to the Exhibition of the Achievements of the Scientists of the Academy of Sciences of Ukraine"]

[Text] A shirt from basalt, a most common mineral. But not that simple. A shirt such that neither a bullet nor a criminal's knife can penetrate it. And the gloves! They look most ordinary, like wool, like thousands of others. But not at all! One wearing them can confidently grab the blade of a knife and boldly snatch it away out of the hands of a criminal—it will not cut you. That is also the strange power of the scarf that protects the neck of the wearer against injury from knives and from the sharpest razor. And what use is an antenna that deploys like an umbrella! This is, however, a special antenna, for special communications... We should not talk about that aloud.

All of these and many other wondrous things could be seen at the exhibition of the "Scientific and Technical Achievements of the Academy of Sciences of Ukraine in the Interests of Defense and Security," which was a substantial portion of the general exhibition devoted to the 75th anniversary of the Academy of Sciences of Ukraine. Seventy-five scientific organizations were represented by 1,300 exhibits.

President of Ukraine Leonid Kravchuk, Minister of Defense of Ukraine General of the Army of Ukraine Vitaliy Radetskyy and representatives of interested agencies and institutions visited the exhibition, as NARODNA ARMIYA

has reported. Here is a little more detail on some of the exhibits that made up the show.

There are some 130 SS-19 liquid-fueled heavy missiles in Ukraine today. There are more than three thousand tonnes of highly toxic fuel in their tanks. One one-thousandth of a milligram in a liter of water is a deadly poison. The latest missiles—the solid-fueled SS-24—are a real problem. They cannot simply be lifted out of their silos. They must be kept at a temperature of 5.35 degrees Celsius, after all. No such salvaging technology exists around the world. A question faces Ukraine: What to do with the missile fuel, sell it? There is no one to sell it to. Blow it up? Not safe. Burn it up? Too expensive, very much so. The missiles turned out to be made without a thought toward the technology for destroying them. There is no such technology.

No, there is such a technology! That is what the scientists of the Academy of Sciences of Ukraine and enthusiasts from the Yuzhnaya KB [Design Bureau] have said. They have developed a unique technology for the conversion of the highly toxic missile fuel into a safe powder that can be stored for years, without harming either the health of people or nature. This substance could even be converted quickly and easily, if necessary, back into the fearsome missile fuel heptyl.

Ukrainian scientists are also engaged in solving problems of salvaging the SS-24 missiles. They have successfully resolved this difficult engineering task as well. This technology, as with everything that is ingenious, is simple. A reagent is poured into a solid-fuel engine of the missile, and two substances are obtained not long afterward. They are not explosive, not harmful and are even useful for everything living. These substances can be used as fertilizer in agriculture. Judge for yourself—roses placed in a solution of this substance last for months.

The Institute of Electric Welding imeni Yevhen Paton had a large exhibition. One's attention is directed toward a welded metal object. Its volume is just 2.5 liters. It is easily accommodated in an ordinary briefcase. But if necessary, it unfolds like an accordion into a rigid, airtight structure with a volume of 150 liters. This wondrous metal tank can withstand space loads as well. The unique technologies of this scientific collective have made it possible to manufacture welding guns in the briefest instant. This invention is widely utilized in shipbuilding and other sectors of machine building. Specialists were also surprised by a material with... memory. A metallic item that is like a piece of paper, crumpled up and placed on a table. But amazingly, it unfolds before our eyes and becomes as it was before. This invention has also been brought into being.

The range of scientific achievements of the Institute of Electric Welding is quite broad. It is worth noting that enthusiasts have developed a technology for elemental welding that is already being employed successfully in electronics. Romantics of science from the leading institute have also astonished the world with the fact that they have made the impossible a reality. They can weld steel, copper and aluminum elements. These metals still cannot be joined to each other around the world. But the Kiev specialists are welding them... by explosion. The people from Paton have safely harnessed the explosion for the

economy, and have forced it to work for the good of man. They have developed a technology for cutting by explosion. Much of this was already known. The blades of a helicopter in trouble are "blown off" with an explosion so that the crew can eject from the craft. The hatch on the Nakhimov motor vessel that sank was also blown off with the aid of an explosion. The canopies of military aircraft are also jettisoned by a directed explosion in ejections. This technology was developed for saving the crew on the famous Buran as well.

They are able to weld titanium and ceramic objects at the Institute imeni Paton. This scientific establishment is undoubtedly a leader in the welding of armor.

The scientists at the exhibition demonstrated a technology for the remelting of gun barrels. The metal retains its quality therein, which is not identical in various parts of the barrel. This makes it possible to economize a considerable amount of funds. And nearby is an unusual exhibit. It is an aerial bomb. Its "jacket," or casing, has certain qualities. It splits into fragments upon explosion, and as the designer envisaged, even the empennage of the bomb is transformed into a deadly fragment of a certain weight and shape.

The scientists have also developed an electron-beam device that makes it possible to weld fuel tanks for the heaviest missiles in the world, and the weld seams are even stronger than the material therein.

Engine parts rebuilt with electron-beam welding serve longer than new ones. Instruments and devices for welding in space, under water and in the field could be seen here. The latter is without gas or electricity. And the use of pincers that increase human strength by 20 times help to join parts firmly.

Technologies were also shown that have no analogues around the world. Specialists from the West thus displayed considerable interest in those inventions. Specialists from the U.S. Customs Service expressed the intention of procuring the individual protective gear that was mentioned above. Armored vests with traditional composite materials, ceramics and titanium, for example, cannot "hold" a bullet. This often leads to shock for the person being protected. Worse things can happen as well; the force of the bullet ruptures the internal organs of the person. That does not happen with the armored vests made from the fabric manufactured with basalt.

A most unusual box, and far from a simple one, was also presented for viewing at the exhibition. This is a "perpetual" box. It does not burn or decay. This invention is for the military, since some ammunition is being stored in Ukraine today on open sites, and the boxes with their deadly contents are rotting. Tare made from basalt is light, and cheaper as well, than the wood that is used today in the military.

The Scientific-Research Institute of Problems of Materials Science imeni I.M. Frantsevych demonstrated engine parts made from 'tikat'. This new material does not melt at temperatures of 1,350 degrees. Specialists from the institute, along with scientists from the United States and Germany, are building a new engine from the new material. It will be an engine for the twenty-first century. There

is already an agreement. The Plant imeni Malyshev Production Association in Kharkiv has moreover already manufactured an internal-combustion engine in which all of the most important parts are made from this material.

The inventiveness of the Institute of the Physics of Metals of the Academy of Sciences of Ukraine has reached heights that have not yet been conquered by their colleagues from the highly developed countries of the world. The exhibits speak eloquently for the specialists of the institute. Here are two pieces of armor—one is 45 mm thick, of the steel that is used today for the manufacture of tanks, armored personnel carriers and infantry fighting vehicles. Next to it is armor 16 mm thick from superhard steel. It is no less strong than the conventional armor that is thicker and almost three times heavier. This is armor from ceramics, combination armor, from polymers and the technology developed to weld them.

The Institute of Superhard Materials demonstrates plates of altinite—a ceramic anti-shaped charge tank armor. The scientists of this institute are working on the Tank-90 program.

The Institute of Organic Chemistry of the Academy of Sciences of Ukraine also showed its inexhaustible capabilities. Its staffers, like sorcerers, are able to develop and manufacture paints with assigned characteristics for any taste and color—anti-radiation, anti-corrosion... As well as those that conceal hardware from the all-seeing eye of radar.

Specialists from the Institute of Problems of Mathematical Machinery presented a significant exhibit. Reviewers directed attention to their interesting and profound developments in the automation of operational control for staffs, as well as neurocomputers that work on the operating principles of the human nervous system.

The exposition of the Institute of Sociology of the Academy of Sciences of Ukraine was interesting in the depth of its research. The state of the armed forces and the sentiments and hopes of its personnel were reflected in figures and graphs as in a magic mirror.

*The variety, importance and scientific value of the exhibits presented at the Science Expo Center have not removed from the agenda the question of bringing to life the great achievements and accomplishments of the scientists of Ukraine. What ways should be taken? What priorities should be defined? How can the mighty scientific potential of the state be preserved, and the production capacity of the military-industrial complex of Ukraine be utilized, so that science and the defense industry are working for the good of the Ukrainian people?*

*The NARODNA ARMIYA correspondent addressed these questions to Supreme Commander-in-Chief of the Armed Forces of Ukraine and President of Ukraine Leonid Kravchuk.*

*They must be modern and efficient and inexpensive,* "answered Leonid Makarovych. *"I say inexpensive, allowing for our capabilities today. That which we can do today must be done—current research and that which has already been done must not be lost. And, naturally, we must proceed to new solutions.*

*"We are destroying the nuclear weapons, the matter is clear there. We are not able to manage, utilize or provide properly for those weapons. But the security of the state must be guaranteed. We must therefore seek out new ways and develop other types of protection that support the defense of the country."*

*"There was a great deal that was interesting at the exhibition. I think that today we will be supporting the highest priority projects, with a regard for the fact that they will work to the maximum effect for defense and security tomorrow. That is the most efficient way."*

#### Vietnamese Military Delegation in Kiev

94UM0305A Kiev NARODNA ARMYA in Ukrainian  
11 Mar 94 p 1

[Press Service of the Ministry of Defense of Ukraine:  
"Meeting With Vietnamese Military Delegation"]

[Text] A military delegation from the Socialist Republic of Vietnam [SRV] arrived in Kiev on 9 March of this year on an official visit. The delegation was headed by Colonel-General Dao Dinh Luyen, chief of the General Staff of the People's Army of the SRV.

In a meeting with Colonel-General Anatoliy Lopata, chief of the General Staff of the Armed Forces of Ukraine and First Deputy Minister of Defense, the two sides discussed the prospects of military cooperation, particularly in the military-technical field, as well as the training of officer personnel.

The two sides exchanged information about the progress being made in building up the national armed forces of their two states and noted the need for a regular exchange of experience gained in solving the problems they encounter.

The members of both delegations were unanimous in their opinion that there are good prospects of a mutually advantageous and equal cooperation between the ministries of defense of Ukraine and the SRV.

Yesterday, General of the Army Vitaliy Radetskyy, Ukraine's defense minister, received the Chief of the General Staff of the People's Army of the Socialist Republic of Vietnam.

#### BALTIC STATES

##### Doctrinal Issues for Latvia's Defense

944K0851A Riga RIGAS BALSS in Latvian 24 Jan 94 p 5

[Article by Valdis Kiploks: "The Quiet, Merciless War: Sending Unarmed Soldiers into Combat is a Crime!"]

[Text] Valdis Kiploks continues his discussion of the disorder and even degradation in Latvia's defense organizations. At the center of attention: the Home Guard. But not it alone...

*One must agree with Defense Forces Commander D. Turlais's statement that right now the threats to the independence and security of the Latvian state are greater than the ability to thwart them (interview in the newspaper LABRIT, 26 January of this year, "A Running Officer Provokes Laughter in Peacetime".) Previously (RIGAS BALSS, 4 January) I wrote*

*"The Quiet, Merciless War" about the growth in Russia's legal activities related to the withdrawal of military forces from our country. We must return to these themes yet again, first of all because the government has finally seemingly recognized the priority of national defense and also the Saeima has approved supplementary sums for these needs. But this money will provide only evil if serious endeavors are not undertaken to clean up defense organizations.*

The complicated state defense system can be simplified in the classical way by thinking of it as a tiered fortress defense, in which the first line of defense is manned by diplomats, the second by ideology, the third by national industry; the fourth, though, is the fortress itself, that is the national military defense forces. If the first three lines of defense spend their time in uninterrupted struggles which the founder of military theory, Clausewitz, reminds us that peacetime is only imaginary, then defense forces in this time carry out only the role of catalyst. In an active battle they would be drawn in and their direct functions will be carried out only in time of military conflict, therefore in the event of final necessity, when the first three lines of defense have not achieved what is desired. Of course, the meaning and arrangement of these lines of defense varies from country to country. For example, in the over-militarized Russia, all defense is based almost entirely on the military complex and that dominates the diplomatic, psychological, industrial and other spheres. In such a country the diplomat Kozyrev or the politician Zhirinovskiy can afford to explore openly armed provocations; their national defense will not suffer from it, for that is guaranteed by a giant army, armed with weapons of mass destruction, and the consequences of their use scientists can only predict, but not precisely calculate. There are similar defense systems in all of the militarized great powers except Japan and Germany. The latter was not permitted by the victorious countries to develop a new Wehrmacht after its capitulation in 1945 and it now is seriously reviewing its defense doctrine. Similar defense issues are being resolved also in the war-vanquished Japan.

Such a model of defense, which was forced on Japan and Germany, but on smaller countries because of meager resources, cannot protect and they came to establish a total defense system, in which all lines of defense flowed together in a seemingly amorphous formation, though actually each insignificant basic organization is subordinated in coordinated action from one center. The exceptions are the defense forces, which stand as a discrete organization carrying out training, supply, and the aforementioned coordination functions. That is a description of an ideal type, in which there would not be also military defense forces, but all the country's defense problems would be resolved by "public defense," which was offered as an alternative to the military by Albert Einstein Institute senior researcher J. Sharp in his speech at the symposium, "New Thinking About European Security." (It is known in Latvia in an expanded version as the brochure, "Defense of Independent Countries Without War and Destruction.") But Mr. Sharp should have known that science and philosophy would permit such an ideal—absolute harmony—only as a momentary pause, after which the rapid slide downward begins, so that the concrete process begins anew, a difficult ascent, but of a different quality. And that

is a sufficient basis to conclude that "public defense" alone can never be an alternative to a military. If we truly want to defend ourselves, then we can only go down this road of plenty and there is no alternative.

It becomes clear from the D. Turlais interview that Latvia still does not have a national defense doctrine, since the Defense Ministry must analyze potential threats to our country. But what should be the relationship between this analysis and the working out of the basic law on national defense? National defense cannot be implemented for just some individual event, but must be effective against any, often sudden and unforeseen type of attack. This defense force "umbrella law" must determine, according to a defense system developed according to some model, how we will arrive at the end result and how that will be integrated, first of all, with the Baltic states' mutual defense system. Two years have passed since the renewal of the country's independence. Yet, we still have no laws nor doctrines. But there have been no changes made in the composition of Defense Ministry personnel. And, if that has not yet been done, then there is a basis for thinking that in the Defense Ministry they are not exerting themselves by sitting on eggs that will never hatch, and that the empty nest-egg should be taken out.

But, if we are talking about threats to our national security, then it would be interesting to know the conclusions of such a competent analysis regarding which is more dangerous: the activities of Zhirinovsky's without political anesthesia, self-declared, Russian "Derzhavnik" [Statists], or the masked "Western expansion," and what might be the defense against each of these events? Everybody knows the facts about the transfer of many millions of dollars, which the Central Committee of the CPSU donated to the Communist parties they maintained in various countries, not to fund picnics, but to maintain the dirty deals and destructive actions connected with associated companies in these countries. But now, right in front of our eyes, innumerable foreign companies with dubious reputations are establishing here practically uncontrollable foreign joint ventures, including Russian and local self-seekers. And all of the negative by-products of this process show that the characteristics of those activities are the same as those for which some USSR Communist party paid such colossal sums in the West. Just on 10 January of this year the conflict in Riga's Vidzeme borough plainly showed that making contact with such puzzling organizations will be much more dangerous than the Skrunda radar remaining and that a whorehouse established by some foreign country's military personnel (their existence at their respective addresses is news to the municipal authorities) could give rise to a military conflict fatal to the country. These facts alone already create the belief that our government's publicized "Western investment" in Latvia is nothing more than the same Communist money flooding through the West. And the apparent sharp disagreement provoked by the East serves only to deflect attention from this, our country's truly dangerous process. Although in Russia it has been even officially announced that for political purposes gigantic sums will flood into Latvia.

It is clear that the delay in working out the basic law on national defense connects the Defense Forces commander and his actions in the work of the existing headquarters

and creates chaos in subordination of defense forces, thereby directing them down the path of degradation. National defense cannot be developed today by fitting it to some personality or situational flow, but we must proceed in accordance with the law, in developing a concrete defense system. And we will immediately see where such unnecessary delay takes us.

Today it is clear to every somewhat thinking person that Latvia's defense cannot be ensured by barbed wire fences and minefields on the country's borders, nor could it be done with a Maginot or Mannerheim line. Only the aforementioned seemingly amorphous national total defense formation can create the threat of unacceptable casualties to an invader and cool the heads of warriors. If we accept that right now the worries about our security are directly related to Russia's behavior, then Russia's critical demographic characteristic right now still shows that the former popular and military mass is not there any more and so this factor cannot be depended on.

The most appropriate defense to develop in a modern state was the Home Guard. Correctly organized, well trained, armed and supplied, it could have become the basis for such a defense. But at that time, contrary to the accepted standards of defense development, it was not subordinated to the Defense Ministry and the supreme command of the Defense Forces. And what is happening there now?

In the training for the officers of the Riga Home Guard brigade in October, company commanders spent a whole week learning how to determine proper protocol for a completely woozy person, that it is humane to hit someone sleeping on the street in the nose, to make it bleed, because without bleeding and some apparent trauma medics simply will not take this person and he will freeze, and that car theft does not qualify as theft, because such a crime is missing an "objective side." They clarified still others of the Russian criminal code demagogic absurdities actually in force and the militia's acquired tricks. And such training is paid for, so, as was said on television, more will be carried out!

Theorists of revolutionary wars and practice prove that organizations established according to voluntary principles, such as our Home Guard, can have only one task: to protect the people and the country. Losing that, it disintegrates with the tendency of individual groupings to develop new or to integrate themselves with already existing criminal character organizations. Thus the world-renowned Italian mafia, "la Cosa Nostra," developed from the self-defense organizations of Sicily's inhabitants. Totalitarian regimes did not permit the existence of organized crime without state sanction (the coming into existence of those is one of the surest weaknesses of the regime and symptoms of imminent collapse), therefore after carrying out their assignment these organizations are simply liquidated. Thus totalitarian regimes liquidated the *Oprichniki*, the early Chekha, the *Istrebiteli*, Rem's *Shturmoviki* in Red Russia, and the Red Guards—the implementors of the "Cultural Revolution" in China.

This same destruction theory and practice is safely and effectively used by psychological warfare specialists and parallel to the chief task in these organizations or popular movements with patriotic motivation brings in some side

assignment or responsibility. With that division, the organization is innoculated with the virus and its movement in the main direction is practically halted. A glaring example of this sort of invasion is found in the actions of the Supreme Council, etc.

The people who joined the Home Guard were patriots, and in the beginning it was organized to protect Latvia's independence. But now at such a critical time to the country, it is obviously being shifted to carrying out police auxiliary service functions! Thus, it is on the road to degradation and disintegration!

One of the characteristics of revolutionary war tactics, to influence the enemy in the most painful way possible, is the fourth thesis formulated by Mao Zedong: "Concentrate in every battle on superior enemy forces." This thesis must be understood to mean that by pretending to rob banks, telegraph centrals and other objects one achieves their stationary guard. And, the more objects that are guarded, and the larger numerically are the guard units, the more beneficial the situation will be for the attackers. A well-planned operation in such an instance will involve a numerically small, well-prepared group of men, who can destroy many numerically large guard units in a few hours. Working out countermeasures to such tactics the German military specialist E. Vorwerk wrote: "One must have the perimeters of objects guarded by those who have a stake in saving the country. For the most part the existing protected objects and sensitive points must be locked together in object groups, which are close together, and they must be protected by roving patrols, but at irregular times."

And what is our Home Guard occupied with right now? Chiefly with the stationary protection of companies able to pay to protect themselves! It is hard to believe that that is out of ignorance or circumstance; it is more logical to conclude that the Home Guard is deliberately being prepared in conformance with the aforementioned scheme or even without pretend robberies and noises, with the help of the same aforementioned Communist party money.

An increase in funding from the state budget for the Home Guard in such a situation will only promote it as the collapse of the national defense organizations. And that is why it is without resistance subordinated to the Defense Ministry and the Defense Forces command, no matter how powerless and undeveloped this ministry is right now. The experience of Lithuania and Estonia is that with such a merging of defense forces protests from some Home Guard commanders or even units could be anticipated. But that will only prove that it is not in their own personal interest to subordinate themselves to anyone and it will clearly show how productive were the activities of the rotting invaders of the the Home Guard.

Both the Defense Forces and the Home Guard still are short of weapons. We are talking here about the most basic soldier's armaments: mortars, grenades, machine guns, automatic rifles, flame throwers, etc. That must be labeled as particularly illogical because producing these weapons is simple in reality. The experience of war indicates that producing them without particular difficulty can be begun in a week's time wherever there are general-purpose metallworking tables. Latvia has enough specialists and all the prerequisites for light weapon production. In its place they

open a monopoly company store, where Home Guardsmen must use their personal resources to acquire pistols and carbines, but not the automatic weapons needed for defending the country. In addition, even these limited arms end up in the hands of civilians who have money and a personal interest. No one in the government has shown any interest in weapons so essential to national defense, such as mortars, grenades and automatic rifles, and none of the Riga Home Guard battalions have any of that. One must must be severely limited to be unable to understand what kind of policies and from what quarters it comes!

Production and sale of battlefield weapons is one of the most profitable businesses in any country and in the current situation it cannot be allowed to be managed by a private company. Such action will permit store proprietors to skim off public money intended for national defense needs into their own pockets, and state control over this branch would be lost.

The battle readiness of the army, including the Home Guard, is determined by three factors. "If one of them is zero or only at a low level, then the level of battle readiness, irrespective of the strength of the other indicators, will not exceed the level of the lowest factor. Therefore, if the army is not armed, then the remaining determinants of battle readiness cannot save you." For the sake of clarity in his interview Mr. Turlais should have expressed this axiom to its end, that is, "A government that sends into battle unarmed soldiers, is a criminal one."

Completely puzzling in the interview are the Defense Forces commander's statements about the functions of the Defense Ministry, its activities and his relationship with this institution. In reality and also in essence, the Defense Forces commander also is a member of the government and democracy would not tolerate it if the supreme commander would also be the Minister and the Defense Ministry did not exist. The division of power principle would not change by that. Defense ministries were established in the highly organized countries to free defense force commanders from all the ancillary duties, such as supplies, finance and other similar questions and so they could effectively resolve only one assignment: the military defense of the country. In addition, by establishing a total model of national defense, all civilian spheres are included and the defense ministry must resolve problems associated with it. Here, too, issues of a military character remain within the competence of the supreme commander. One can imagine what kind of defense that would be in war time, if military operations were planned by a civilian ministry and the commander received those plans the evening before the battle.

In his ignorance the staggering officer will be no better than the running one to whom D. Turlais referred. And, freeing ourselves from Soviet thinking, we must still understand how to avoid falling into the trench of helplessness. The Defense Forces commander is and must be the person who has the final word in all military questions, within the national defense policy confines determined by the Saeima and Constitution, of course. And such a commander will have the recognition and support of the people.

## CAUCASIAN STATES

### Azerbaijani Security Minister Reviews Border Troops Situation

944K0925C Baku BAKINSKIY RABOCHIY in Russian  
22 Feb 94 p 2

[Article by M. Akhundlu: "There Is No Peace on the Border: Notes from an Expanded Meeting of the Border Troops Directorate of the Azeri Republic Ministry of National Security"]

[Text] The Azeri Republic Ministry of National Security border troops serve their duty in complex operational conditions. As was already reported, during combat actions Armenian armed formations reached the Azeri-Iranian border and now a significant part of Azeri territory is under their control. Tens of thousands of refugees from regions occupied by the enemy are also concentrated on the border. This diverts personnel from their primary duties, and border troops are participating in combat operations, distributing humanitarian aid coming from the Iranian side, and conducting scheduled activities in regions where camps for refugees in the border zone are located.

Special difficulties in serving on the border arise from the incompetence of personnel at the military posts of Dzhaliabad and Yardymly, where frequent attempts are made to cross the border and bring in contraband.

The border in the Geytepe section is not being guarded properly. Smuggling and the driving of livestock to the neighboring country often occur under the "patronage" of certain associates of state and law enforcement organs and soldiers.

A difficult situation has taken shape on the northern borders of our republic. Last year certain leaders of the Dagestan society Sadval intended to create tension in this zone and resorted to direct provocation. Thus, someone

with the nickname of Alik from time to time approached the Samur post at Yalaminskiy Checkpoint with his detachment and using firearms tried to provoke a confrontation and threatened the Azeri border troops. As it became clear, this group is closely linked to associates of the militia and GAI [State Automobile Inspection] of Magerramkentskiy Rayon, which adjoins our republic. More than once militia associates on Dagestan's territory have beaten up drivers of motor vehicles going from Azerbaijan to the Russian Federation.

One might say the measures which our republic's leadership is taking to resolve the problems of the local Lezghin population are to some extent reducing tension. But the situation on the northern border of Azerbaijan also depends to a considerable extent on the actions of criminal elements who are sowing hostility among our peoples. The rayon public should take a stand here and rebuff the provocations.

Last year about 3,000 people tried to cross the border with Iran. They were citizens of Turkey, Ukraine, Afghanistan, Azerbaijan, and Iran. More than 13 million rubles and about 1.5 million manats, 3 million rials, 45,000 U.S. dollars, hundreds of head of cattle, sheep, and goats, firearms, cartridges, narcotics, and tonnes of aluminum and copper were confiscated from offenders. All this was discussed at the expanded meeting of the republic Ministry of National Security's Border Troop Directorate.

As was noted at the meeting, the benefit from the border troops could be more appreciable if military discipline were more carefully observed at military posts and officers and soldiers were more vigilant, honest, and professionally trained. The fact that during the year 100 officers and warrant officers were discharged from the border troops for various violations is also alarming.

And 1994 will not be a simple one for the border troops either, and a number of proposals to step up the Directorate's activity and raise the professional attributes of personnel were adopted at the meeting.

## ARMS TRADE

**Sole Arms Trading Company Established**  
*94UM0302A Moscow SEGODNYA in Russian*  
*15 Mar 94 p 3*

[Article by Pavel Felgengauer: "Russian Arms Trading Now in Single Pair of Hands"]

[Text] Another transitional period has ended for Russian arms sales. The previous special exporters—Oboronprom (GIU), Spetsvneshtekhnika (GKU), and GUSK—have officially ceased operations, and all business has been transferred to the Rosvooruzheniye State Company. The state company is no longer a part of the Ministry of Foreign Economic Relations but is directly subordinate to the president and the government, although the Russian traders are housed in the same offices on Ovchinnikovskaya Embankment in Moscow. The state company is also staffed with experienced personnel from the former GIU, GKU, and GUSK.

Rosvooruzheniye was established in accordance with Yeltsin edict No. 507 in order to put a stop to unchecked arms exports and senseless competition among the special exporters. The idea of creating a single state company was supported by Oleg Soskovets, Vladimir Shumeyko, and Aleksandr Shokhin. General Viktor Samoylov was named general director of the state company; he previously served as a Russian government adviser on Shumeyko's staff.

Arms export licenses will be issued by the Ministry of Foreign Economic Relations licensing department, as before, but employees of the state company will gather all the consenting signatures for each transaction from the relevant departments (the Ministry of Defense, the Ministry of Foreign Affairs, the Foreign Intelligence Service, the Federal Counterintelligence Service, etc.). Total arms exports from Russia are currently at a level of \$2 billion annually. Rosvooruzheniye will earn commissions of three to seven percent on each sale. It will use these funds to develop business (investments in the defense complex, participation in international exhibits, etc.). In General Samoylov's opinion, Russian arms trading is in good hands.

**Russian Participation in Chilean Air Show FIDAE-94**  
*94UM0300A Moscow KRASNAYA ZVEZDA in Russian*  
*15 Mar 94 p 3*

[Article by Valentin Rudenko and Aleksandr Manushkin: "Success of the FIDAE-94 Is Predetermined by the Participation of Russia: So Thinks Axel Cabrera, Chilean Consul in the Russian Federation"]

[Text] The eighth international aerospace exhibition FIDAE-94 will take place in the Chilean capital Santiago from the 20th through the 27th of March of this year. A press conference of Colonel-General of Aviation Petr Deynekin, commander-in-chief of the Air Forces and head of the Russian delegation, dealt with what our aircraft builders will demonstrate at this exhibition.

Also participating in the press conference were Valentina Tereshkova, the world's first woman astronaut; Yuri Starodub, deputy chairman of the State Committee for the Defense Industry; Pavel Trishin, deputy general designer of

"Rosvooruzheniye"; Vice-Admiral Leonid Golovko, arms chief for the navy; and Sergey Belousov, general director of the Russian exposition.

The military-technical cooperation of Russia with the countries of the Latin American continent goes back more than 20 years, but never before have we participated in air shows here. FIDAE-94 is the debut for Russian aircraft builders and it is a good chance for them to announce their presence loudly in the markets of Latin America. Time will tell to what degree they are successful in taking advantage of this. Right now we are actively preparing for the air show.

The fighter-interceptors Su-27UBK and Su-30MK and the transport aircraft Il-76 arrived in Chile under their own power, having covered more than 16,000 km through the air. The air giant An-124 "Ruslan" landed in Santiago two days earlier. It had on board light frontal fighters MIG-29 and MIG-29UB for the air show. The main delegation will fly to Latin America on 17 March on the long-range airliners of the Ilyushin firm Il-62 and Il-96-300.

They expect 400 firms and companies from 34 countries of the world to take part in the FIDAE-94 aerospace exhibition. The largest aircraft building firms of Russia, the United States, France, England, Germany, Italy, Canada, and many other states have set up their displays on specially equipped pavilions and exhibition areas covering about 60,000 square meters. The directors of all leading aviation companies of Latin America have been invited to the air show. Among the honored guests of the air show are Col-Gen of Aviation Petr Deynekin, commander in chief of the Russian Air Forces; Valentina Tereshkova, first woman astronaut; Vladimir Kuzmin, general director of MAPO [Moscow Aviation Production Association]; and Mikhail Simonov, general designer of the ANPK [Aviation Scientific Production Complex] "OKB Sukhoi" [Sukhoi Experimental Design Bureau].

The organizers of FIDAE-94 have no doubt about the success of the air show. Its success is predetermined by the participation of Russia in the air show, as Axel Cabrera, Chilean consul in Russia, said. According to the forecasts of specialists, the aerospace exhibition in Chile will be visited by more than 600,000 people, including 3,000 marketing agents and merchants specializing in the aviation business.

"Rosvooruzheniye," a recently established state company for the export and import of arms and military equipment, took on most of the work in the organization of the Russian section at the FIDAE-94 air show. In Chile, Russia intends to demonstrate the latest developments and also the series production of more than 50 design bureaus, research institutes, and industrial enterprises. Altogether, more than 100 different models of aviation equipment and arms systems will be presented. The participants in the exhibition will be able to familiarize themselves with an entire family of Russian delivery systems, antiaircraft missile systems, surface ships and submarines, surface skimmers and with various air and naval arms, radar complexes, and firearms. But the hit of the air show will still be combat aircraft. The commander in chief of the Russian

Air Forces does not rule out the possibility that some foreign pilots will even be given the chance to fly our fighters.

MAPO, one of the oldest aviation production associations in Russia, is presenting series models of the light frontal fighters MIG-29 and MIG-29UB in Chile. Beginning with the air show in Farnboro in 1988, our MIG's have been demonstrated at practically all large international aerospace exhibitions, where they gained the reputation of being the best light fighters. They recently affirmed this reputation in Italy, where they carried out instructional air battles between the MIG-29 and the American F-15, F-16, and F-18. Our fighters gained a convincing "victory" in them.

At the air show in Chile, MAPO is proposing to its potential partners not only combat aircraft themselves but also guaranteed servicing under world standards.

And it is hardly likely that anyone at the current air show will be able to compete with the fighter-interceptors Su-27UBK and Su-30MK of the scientific-production aviation complex "OKB Sukhoy." The mere fact that they flew to Chile with just a few intermediate landings was a sensation in the aviation world.

Chile is not only an air power but a naval power as well. Hence, it is understandable why naval themes will also be widely represented in the Russian section of the FIDAE-94 show. In particular, there are submarines, the "Murena" and "Zubr" landing craft on air cushions, which are capable of transporting different tracked and wheeled vehicles along with their crews (as much as 130 tonnes), the patrol boats "Saygak" and "Muflon," a system of tactical strike missile weapons....

The experience of the previous exhibitions and air shows has shown that firearms are particularly popular there. Visitors at FIDAE-94 will have the chance to get to know the new Kalashnikov assault rifles AK-101 and AK-102 (caliber 5.56 mm), the underwater pistol SPP-1M (caliber 4.5 mm), a noiseless assault rifle, a sniper's rifle, and other weapons.

Air shows are costly. Participation in FIDAE-94 will cost us at least \$600,000, even under the most modest estimates. But it is necessary to spend money for this, because there simply is no better way to make ourselves known and to present our goods in person. By the way, we have already passed the critical point in the reduction of Russian military exports. The figures for 1993 are higher than for 1992. At the present time, Russia's share in the total volume of world arms exports is 5 percent.

## DEFENSE INDUSTRY

**Arms Producer on Financial-Industrial Groups**  
*PM2203134394 Moscow KRASNAYA ZVEZDA in Russian 5 Mar 94 p4*

[Interview with Aleksandr Temerko, president of the "Russkoye Oruzhiye" Special Corporation, by correspondent Valentin Rudenko; date and place not given: "The Future Lies With Financial-Industrial Groups"]

[Text] The "Russkoye Oruzhiye" Special Corporation was formed on 10 June 1993. It includes concerns and corporations which produce basic types of arms and military

equipment (the "SMM" Joint-Stock Company—armored equipment and artillery systems; the "Aviaprom" Joint-Stock Company—combat aircraft; the "Metallkhim" Joint-Stock Company—ammunition and gunpowder; the "Nord-Vest" Joint-Stock Company—surface ships and submarines; the "Optomprom" Joint-Stock Company—electro-optical instruments; the "Vityaz" Joint-Stock Company—small arms, antitank guided missiles, and portable surface-to-air missile systems; the "Antey" Science and Production Association—S-300V, "Tor," and "Buk" surface-to-air missile systems; and the "Rosobshchekhmas" Joint-Stock Company—space systems and missiles), and also the "Voyentekh" State Company for the Sale of Arms and Military Equipment and others.

The Council of Directors is headed by Stanislav Chernov, formerly general director of the Kirov Plant and USSR first deputy minister of the defense industry, now president of the "Spetsialnoye Mashinostroyeniye i Metallurgiya" Concern. Aleksandr Temerko, formerly head of the Committee for the Social Welfare of Military Servicemen, has been elected president of the "Russkoye Oruzhiye" Special Corporation.

[Rudenko] Aleksandr Viktorovich, as is well known, the idea of financial-industrial groups is not new. They form the basis of industrial might in most economically developed countries. A number of large industrial enterprises in Russia have now decided to set up something similar here. But do the objective conditions for this exist?

[Temerko] The conditions have existed for some time. Moreover, I am convinced that setting up financial-industrial groups will become a priority aspect in the structural reorganization of Russia's entire economy, as it perhaps offers the only possibility at present to preserve our national scientific, technical, and industrial potential, including at enterprises, design bureaus, and scientific research institutes in the defense complex.

Whereas previously the military-industrial complex worked virtually 100 percent for the state and, naturally, was fully financed from the budget, the situation now is drastically different. At best, the defense order does not exceed 40-45 percent of total output, although it is generally 5-15 percent with regard to aircraft firms, for example. Moreover, as a rule, money is only allocated for this purpose after long delays and is eaten up to a considerable extent by galloping inflation. Tell me, is it possible in these conditions to supply the Armed Forces in full with the weapons systems they need and at the same time produce competitive export models of combat equipment? Of course not.

The absence of budget finance has prompted large defense firms to set up financial-industrial groups, which incorporate financial structures—banks, investment and insurance companies, management firms, and so forth—in addition to leading design bureaus, series production plants, and enterprises supplying components. This process was spontaneous at first, but now it has a normative base: The Russian Presidential Edict on the Formation of Financial-Industrial Groups. The essence of this edict can briefly be summed up as follows: It gives the right to attract nonbudgetary resources—both one's own and those of commercial structures incorporated in financial-industrial

groups—to solve tasks, including tasks relating to the defense complex, and creates the conditions for these groups to work in practice.

For example, the good idea of forming mobile forces has been put forward, but there is no money in the budget to supply them with the latest combat equipment. Financial-industrial groups could find the money. But only on the condition that money spent on the production of defense equipment will be regarded as direct investments to meet state needs, will be exempt from tax, and will be given the necessary government preference.

The Defense Ministry must coordinate all work connected with ordering weapons systems, regardless of whether they are paid for from the budget or not.

Given the obvious inadequacy of the state defense order, financial structures' participation in investments will allow industrial enterprises to keep their cadres, continue their present specialization, and manufacture competitive defense equipment for the domestic and foreign markets. For commercial banks which are past the formative period and eager for large-scale activity, including the possibility of direct competition with foreign banks, an alliance with industry also signifies a qualitatively new evolutionary step.

[Rudenko] Tell me, how do you envisage the mechanism for combining financial and industrial capital, and what function will the "Russkoye Oruzhiye" Special Corporation assume in this process?

[Temerko] Our corporation, whose founders and partners include leading producers of arms and combat equipment and large financial structures, has a highly skilled apparatus, so it sees its main task as being able to secure investment in production programs within the framework of financial-industrial groups, and also to monitor the management of financial resources so that a complete cycle of cooperation can be established as far as possible. Another important aspect of our activity will be to create the right conditions in the market of sale. Moreover, in some cases, the special corporation may fulfill the functions of a controlling company within financial-industrial groups being set up. But in any case the financial-industrial group will remain a closed, independent finance and production structure.

Although financial-industrial groups have been discussed for some time, unfortunately none have been legally registered so far. There are prototypes, but they are not proper financial-industrial groups, so all the work to set them up still lies ahead.

In our view, financial-industrial groups must not simply be a focus of powerful scientific and industrial potential; they must also actively market their products on the domestic and foreign markets. They will have considerably more favorable opportunities to present and promote their products in the broadest sense at international exhibitions and simply in direct competition with foreign firms. That is why financial-industrial groups must have the right to engage in independent foreign economic activity relating to products they create with resources they attract.

[Rudenko] But how does this tie in with the state monopoly on arms sales and with the current restructuring of military-technical cooperation?

[Temerko] You mean the reduction in specialist exporters and the formation of "Rosvooruzheniye" on the basis of three large Ministry of Foreign Economic Relations foreign trade state companies which export and import arms and military equipment and, at the same time, duplicate one another? In principle, we feel this is the right step to take—particularly now, when our industry and economy are undergoing reform.

On the basis of last year's results, military-technical cooperation amounts to something in the region of \$2.2 billion, if you count money received for technical assistance. But there are fears that this figure could be substantially lower by the end of the year. Heaven forbid that it should fall below the critical 1 billion mark. The main task facing "Rosvooruzheniye" now is to prevent a possible massive slump, hold on to the main markets, and thereby support industry, for which export orders have recently acquired very serious significance.

Our special corporation is not a direct arms exporter, but we intend to do our utmost to promote the sale of our country's arms and combat equipment abroad and to extend technical assistance through investment and by lobbying in favor of various decisions both here and abroad.

As far as the state monopoly on arms sales is concerned, this must, of course, continue. But, as Western countries' experience shows, it certainly must not only take the form of reducing the number of specialist exporters, but must also be reflected in strict regulation of military-technical cooperation by means of legal conditions and arms export laws. In the United States, for example, more than 100 firms are authorized to sell military defense products. Approximately the same system operates in France, Germany, and a number of other countries which have a large share in the sale of arms and combat equipment. In turn, involving more structures in the export of goods intended for military-technical purposes helps to expand markets. Unfortunately, we still do not have a law on military-technical cooperation.

In short, the system of selling arms must be more flexible, particularly now, when defense enterprises are being denationalized and turned into joint-stock companies. Not only specialist exporters, but also other state structures should concentrate on winning new markets. So far, there has been a regrouping at the level of "trading" organizations. There were three specialist exporters, now there is one. This must be followed by structural changes in state bodies of administration.

[Rudenko] You mean the creation of a special body of administration which could rapidly respond to any change in the situation and monitor and coordinate military-technical cooperation?

[Temerko] Exactly. At present, these functions are, to a certain extent, the responsibility of the Commission for Military-Technical Cooperation. For all its pluses, this

commission does not have an adequate apparatus. For objective reasons, it cannot embrace the whole range of problems.

In the interests of government regulation and monitoring of military-technical cooperation in accordance with the Russian Federation presidential edict of 12 May 1992, it would be advisable to form a Russian Federation committee for military-technical cooperation with foreign countries within the structure of federal bodies of executive power. This committee would ensure balanced export orders by means of both centralized allocations and non-budgetary resources; fulfill the functions of licensing arms exports (and imports); coordinate the activity of financial-industrial groups both here and on the foreign market; and promote Russian producers' inclusion in the system of international integration relating to the defense industry, which would, of course, help to give our arms and military-technical goods access to world markets.

In addition, in my view, greater powers to fulfill these functions must be given to the Defense Ministry, as a general buyer of arms and military equipment. The military department has all the structures for this.

The Defense Ministry is in a better position than anyone to influence regional policy through its developed network of military missions. This does not mean that military attaches must become traders. But they can do a perfectly professional job of selecting clients, checking out their honesty and ability to pay, and analyzing in which markets we are threatened with losing our positions and which weapons are needed by which country at any given point in time.

More vigorous, bold efforts must be made to sell combat equipment from Defense Ministry stocks. It is cheaper and is snapped up in markets where we have influence. As is right and proper, 70 percent of the profits would be used to tackle social problems, and the remaining 30 percent to update arms and finance the defense order. It is estimated that 30 percent of the proceeds from the sale of one tank would be sufficient to build three or four new tanks. As is well known, the "Voyentekh" State Company, set up on the Defense Ministry's initiative and approved by the Russian president, is responsible for selling combat equipment and arms from military department stocks.

[Rudenko] Aleksandr Viktorovich, the various directions in which the economic reforms could continue are currently being debated in the press. I would like to hear your point of view on the subject.

[Temerko] As far as defense production is concerned, strictly speaking, no reforms are being undertaken at present. There is just an ad hoc response to the various situations that arise. A situation arose with bad debts and mutual nonpayments, to which there was a response. But even that was half-hearted.

The defense industry can and wants to produce modern weapons systems, but the appropriate conditions must be

created for it to do this, instead of forcing it to engage in nonspecialized conversion. The Defense Ministry and the government have already taken some strategic steps in this direction. The basic principles of a military doctrine and an arms program have been drawn up and adopted. In this particular case, military-technical cooperation should be regarded as an inalienable part of the government's economic reforms.

If we are really concerned about preserving the unique scientific and technical potential of the defense complex and restoring its former glory and might, all opportunities must be taken at all levels. There are no ready-made solutions for extricating the defense industry from crisis, and there never will be.

#### Defense Industry Suppliers to Make Gas Pumping Equipment

94P50111A Moscow RABOCHAYA TRIBUNA in Russian  
23 Mar 94 p 1

[Report from Gazprom Information-Advertising Center: "Gazprom Knows the Sense in Missiles"]

[Text] A delegation from the Russian Joint Stock Company [RAO] Gazprom headed by chairman of the board R. Vyakhirev visited the Perm design and production joint stock companies Aviyadvigatel and Permskiye Motory, the Iskra scientific-production association and one of the city's machinebuilding enterprises. Until recently these converted enterprises worked on orders from the defense and aviation industries, producing engines for military and civilian designation as well as missile equipment.

Last year RAO Gazprom and the Perm enterprises concluded a three-year agreement on the development and experimental production, on the basis of aviation engines, of gas pumping units with a 12MVT capacity and a coefficient of useful service life of more than 34 percent.

Beginning in the 1970's the gas industry used aviation engines as drive pumps at gas compressor stations of the main gas pipelines. However, at that time Gazprom used old equipment which had already exhausted its flight resources and which had low technical-economic indicators. During its visit to Perm the Gazprom delegation reviewed the experimental gas pumping unit models working at one of the gas pumping stations under Perm and discussed the course of further work on developing and implementing production of these units with the leadership of the Perm enterprises and design bureaus.

Production of this equipment ordered by Gazprom at Perm enterprises will allow for carrying out reconstruction at the currently existing compressor stations. As a result, the productivity of the mainline gas pipelines will increase 15-20 percent, waste of gas will drop and expenses for repair work will decrease.

In addition, the orders from RAO Gazprom will allow the Perm enterprises to maintain their scientific and technical potential. Purchases of imported equipment will decrease as a whole for each sector.

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